NEW CONSTRUCTION OF:

Vanilla shell Comercial Building
PARK PLACE at DOUGLAS

Scope of Work

These construction documents indicate a scope of work for the construction of a one story 5,126 square foot building. The space will be vanilla shell, to be developed later under seperate permits.

General Notes and Requirements

1. These documents design and specifications are the exclusive property of PNM Architecture (the Architect). Reproduction in any form without the expressed written permission of PNM Architecture is strictly prohibited.

2. PNM Architecture (the Architect) does not exercise control, and shall not be responsible for any construction means, methods, techniques, sequences or procedures, or for safety practices in connection with the work. Furthermore PNM Architecture (the Architect) does not hold any liability for acts or omissions of the Contractor, Sub-Contractors or any other persons performing any work, or for the failure of any of them to carry out the work in accordance with these documents and all governing statutes.

3. All work shall comply with the 2023 Florida Building Code eight eddition and all other applicable rules and regulations.

4. The General Contractor and all Sub-Contractors shall verify all conditions, details and dimensions before proceeding with work, and shall be responsible for coordination of that work. The Architect shall be notified immediately of any discrepancies.

5. Drawing dimensions should be followed and scaling of drawings avoided. Dimensions supersede scale on drawings.

6. It is intended that all work be of the highest quality, and performed by accomplished craftsmen in a workmanlike manner using accepted practices and methods appropriate to the trade involved.

7. All products and materials shall be installed as per manufacturer's instruction and specifications unless specifically otherwise directed by the Architect.

8. The General Contractor, Sub-Contractors and Suppliers shall be responsible for coordinating their work and certifying that their products and installations meet the Florida Building Code, the Florida Accessibility Code as well as all applicable government statutes.

9. The General Contractor shall be responsible for obtaining all applicable permits and providing the Owner with all applicable certificates, operating manuals, warranties, etc. prior to occupancy.

10. All work in question including materials, finishes and colors shall be coordinated with appointed project manager.

11. Sub-Contractors and suppliers may submit alternate bids for similar or equal systems, equipment or materials for approval. These alternates shall be clearly indicated and separated from the base bid. The suggested changes should provide the same quality or workmanship and not diminish the function of the item or trade.

12. Provide non-slip surfaces at all areas continually exposed to moisture or surface water.

13. All fabricated items shall be made from field measurements. Provide shop drawings or submittals for approval prior to fabrication and installation.

14. Fire sprinkler and alarm supplier shall be responsible for submitting plans and obtaining all applicable permits for all required fire sprinkler system modifications and additions.

15. Mechanical and Electrical Contractors shall be responsible for providing appropriate details and specifications of all penetrations through fire-rated construction as may be required by the building official.

16. All Contractors are required, before submitting their proposals, to visit the site of the proposed work and completely familiarize themselves with the scope and nature of the work. Any existing conditions that may in any manner affect their work should be ascertained regardless of whether it is indicated on the drawings. Any oversight or omission to identify existing condition which may affect scope of work is Contractor(s) responsibility.

17. All Contractors are required to examine carefully the drawings, specification and other documents to inform themselves thoroughly regarding any and all conditions and requirements that may in any manner affect the work.

18. All contractors shall not avail themselves of any unintentional error or omission and shall be charged with the responsibility of furnishing a complete portion of this contract according to the reasonably implied spirit and intent of the drawings. Change orders will not be granted after the General Contractor's contract is signed, unless they can be substantiated as an unforeseeable item beyond the general intent and scope of the work.

19. Structural steel supplier shall provide shop drawings based on these Plans for all steel items indicated herein including the roof access ladder for approval prior to fabrication.

20. Signage supplier/contractor shall be responsible for submitting plans and obtaining all applicable permits for signage components as required to meet code.

21. AS PER 2023 FBC EIGHT EDITION CHAPTER 1 SECTION 107.3.4.1 DEFERRED SUBMITTALS.

22. INTERIOR FINISH & TRIM REQUIREMENTS.
A. ALL MATERIAL USED FOR INTERIOR WALL FINISH AND TRIM SHALL BE CLASSIFIED IN ACCORDANCE w/ASTM E84.
CLASS A FLAME SPREAD: 0 – 25; SMOKE DEVELOPED: 0 – 450
CLASS B FLAME SPREAD: 26 – 75; SMOKE DEVELOPED: 0 – 450
CLASS C FLAME SPREAD: 76 – 200; SMOKE DEVELOPED: 0 – 450

B. ALL INTERIOR WALL FINISHES IN ROOMS OR ENCLOSED SPACES WITHIN THE BUILDING SHALL BE CLASS C OR BETTER INCLUDING WOOD TRIM UNLESS NOTED OTHERWISE.

23. SEPARATE PERMITS ARE REQUIRED FOR THE FOLLOWING IF APPLICABLE:

Construction trailers, sales centers, dumpster enclosure, lift stations, swimming pools, playground equipment, signs, retaining walls, entry wall features, accessory structues
access gates, site lighting, generators, fences, awnings, grease traps, generators, etc.

Site Address

PROPERTY LOCATION: DOUGLAS AVE, ALTAMONTE SPRINGS, FL 32701
PARCEL ID: 14-21-29-510-0B00-0010 & 14-21-29-510-0B00-0020

Building Code(s)

Building Code - FBC 2023 (8th edition)
Fire Code – FFPC 2023 (8th edition)
Plumbing Code – FBPC 2023 (8th edition)
Mechanical Code – FBMC 2023 (8th edition)
Electrical Code – NFPA 70
Accessability Code – FBC 2023 (8th edition)
FEnergy Conservation-2023 8TH ED FBC ENERGY CONSERVATION
Administrative Code - FAC
Florida Statues - FS

Building Data

Occupancy Classification - ----------ASSEMBLY A2 (future resturant)
MERCANTILE M (future retail)
BUSINESS B (future business)

Occupant Load --------- To be determined under future tenant building permit application

Construction Type ---------- IIB

*New Tenant space(s) interiors to be developed later.

Building Area

Total building area .....5,871 S.F.

Code Analysis

At this time is not know if the vanalla shell will be occupancy M, B, or reasturant A2. For purposes of construction all three uses are checked for compliance.

for a non sprinklered building;
Allowable Height above grade as per FBC table 504.3a for occupancy M, B, A2
Type IIB construction
---------- 55 feet

Allowable number of stories as per FBC table 504.4a for M and A2 occupancy
Type IIB construction
---------- 2 story
for occupancy B is 3 stories

Allowable Area as per FBC table 506.2a for A2 occupancy
Type IIB construction
----------9,500 sf
for occupancy B ----------23,000 sf
for occupancy M ----------12,500 sf

Proposed total building area of 5,871 SF is less than allowable area of 9,500 SF (A2) 23,000 (B) 12,500 (M)

Proposed building is 1 stories, which is less than allowable 2 stories (A2,M) and 3 stories (B)

Proposed building is 23'-8" height, which is less than allowable 55' (A2, B, M)

Project Team Members

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PNM Architecture
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Phone 407-786-4811

Civil Engineer;
FEG Engineering
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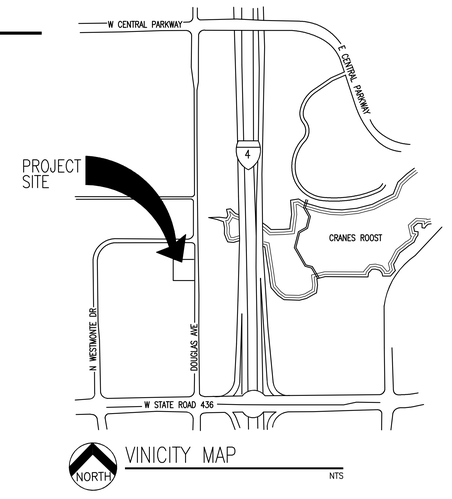
Orlando, Florida 32809
Phone: (407) 895-0324

INDEX OF SHEETS



VINICITY MAP
NTS

Abbrevations

A
@ AT
& AND
AB ANCHOR BOLT
ACOUST ACOUSTICAL
A/C AIR CONDITIONING
ACT ACOUSTICAL CEILING TILE
AD AREA DRAIN
AFF ABOVE FINISHED FLOOR
AHU AIR HANDLING UNIT
ALT ALTERNATE
ALUM ALUMINUM
APPROX APPROXIMATE
ARCH ARCHITECTURAL
AV AUDIO VISUAL
AVG AVERAGE

B
BD BOARD
BEJ BRICK EXPANSION JOINT
BLDG BUILDING
BLKG BLOCKING
BOT BOTTOM
BO BOTTOM OF
BRG BEARING
BRK BRICK
BSMT BASEMENT
BUR BUILT–UP ROOF

C
CAB CABINET
CB CATCH BASIN
CFM CUBIC FEET PER MINUTE
CF CUBIC FEET
CFMF COLD–FORMED METAL FRAMING
CJ CONTROL JOINT
CL CENTERLINE
CLG CEILING
CLOS CLOSET
CM CENTIMETER
CMU CONCRETE MASONRY UNIT
CO CLEAR OPENING, CLEAN OUT
COL COLUMN
CONC CONCRETE
CONF CONFERENCE
CONST CONSTRUCTION
CONT CONTINUOUS
CORR CORRIDOR
CPT CARPET
CT CERAMIC TILE
CW CHILLER WATER
CY CUBIC YARD
EXPOSED
EXT EXTERIOR

D
D DEEP
DBL DOUBLE
DET DETAIL
DF DRINKING FOUNTAIN
DIA DIAMETER
DIAG DIAGONAL
DIM DIMENSION
DN DOWN
DR DOOR
DS DOWNSPOUT
DWG(S) DRAWING(S)

E
E EAST
EA EACH
EF EACH FACE
EIFS EXTERIOR INSULATION FINISH SYSTEM
EJ EXPANSION JOINT
ELEC ELECTRICAL
EL ELEVATION
ELEV ELEVATION
EQUIP EQUIPMENT
EQ EQUAL
EW EYE WASH, EACH WAY
EWC ELECTRIC WATER COOLER
EWH ELECTRIC WATER HEATER
EXIST EXISTING
EXP EXPANSION, EXPOSED
EXT EXTERIOR

F
FA FIRE ALARM
FB FACE BRICK
FD FLOOR DRAIN
FE FIRE EXTINGUISHER IN CABINET
FEX FIRE EXTINGUISHER ON BRACKET
FF FINISHED FLOOR
FFE FINISHED FLOOR ELEVATION
FH FIRE HYDRANT
FHC FIRE HOSE CABINET
FIN FINISH
FL FLOOR, FLOORING
FO FACE OF
FOC FACE OF CONCRETE
FOM FACE OF MASONRY
FOS FACE OF STUDS
FP FIREPROOF
FR FIRE RATED
FRP FIBERGLASS REINFORCED PLASTIC
FRT FIRE RETARDANT TREATED
FS FULL SIZE
FT FOOT, FEET
FTG FOOTING
FURN FURNISH
FUT FUTURE
FV FIELD VERIFY

G
G GAS
GA GAGE
GALV GALVANIZED
GB GRAB BAR
GC GENERAL CONTRACTOR
GCMU GLAZED CONCRETE MASONRY UNIT
GD GRADE
GFRC GLASS FIBER REINFORCED CONCRETE
GFRG GLASS FIBER REINFORCED GYPSUM
GL GLASS
GYP GYPSUM
GWB GYPSUM WALL BOARD

H
HB HOSE BIB
HC HANDICAPPED, HOLLOW CORE
HD HAND
HDR HEADER
HDWD HARDWOOD
HDW HARDWARE
HK HOOK(S)
HM HOLLOW METAL
HORIZ HORIZONTAL
HP HIGH POINT, HORSE POWER
HR HOUR
HS HEAT STRENGTHENED
HT HEIGHT
HVAC HEATING VENTILATING AIR CONDITIONING

HW HOT WATER

I
ID INSIDE DIAMETER
INSUL INSULATION
INT INTERIOR
INV INVERT

J
JAN JANITOR
JC JANITOR CLOSET
JST JOIST
JT JOINT

K
KD KNOCKDOWN
KG KILOGRAM
KIT KITCHEN
KO KNOCKOUT, KNEE OPENING
KS KNEE SPACE

L
L LONG, LENGTH
LAB LABORATORY
LAV LAVATORY
LB LOAD BEARING
LBS POUNDS
LEV LEVEL
LH LEFT HAND
LHR LEFT HAND REVERSE
LIN LINOLEUM
LLH LONG LEG HORIZONTAL
LLV LONG LEG VERTICAL
LP LOW POINT
LT LIGHT
LTL LINTEL
LVR LOUVER
LW LIGHTWEIGHT

M
MM METER
MAINT MAINTENANCE
MAX MAXIMUM
MDF MEDIUM DENSITY FIBERBOARD
MDO MEDIUM DENSITY OVERLAY
MECH MECHANICAL
MET METAL
MEZZ MEZZANINE
MFR MANUFACTURER
MFG MANUFACTURING
MH MANHOLE
MIN MINIMUM
MIR MIRROR
MISC MISCELLANEOUS
MM MILLIMETER
MNT MOUNT
MO MASONRY OPENING
MTG MOUNTING
MTL METAL
MULL MULLION

N
N NORTH
NE NORTHEAST
NIC NOT IN CONTRACT
NO NUMBER
NOM NOMINAL
NPS NOMINAL PIPE SIZE
NTS NOT TO SCALE
NW NORTHWEST

O
O A OVERALL
OC ON CENTER
OD OUTSIDE DIAMETER
OFF OFFICE
OFCI OWNER FURNISHED CONTRACTOR INSTALLED
OFOI OWNER FURNISHED OWNER INSTALLED
OH OVERHEAD, OPPOSITE HAND
OPNG OPENING
OPP OPPOSITE
OTO OUT–TO–OUT

P
PBD PARTICLE BOARD
PC PRECAST
PERF PERFORATED
PNT(D) PAINT(ED)
PL PLATE, PROPERTY LINE
PLAM PLASTIC LAMINATE
PLAS PLASTER
PLBG PLUMBING
PLWD PLYWOOD
PLYWD PLYWOOD
PNL PANEL
POL POLISHED
PR PAIR
PSF POUNDS PER SQUARE FOOT
PSI POUNDS PER SQUARE INCH
PT PRESSURE TREATED
PTN PARTITION
PVC POLYVINYL CHLORIDE
PVG PAVING
PWD PLYWOOD

Q
QT QUARRY TILE
R
R RADIUS, RISER
R/A RETURN AIR
RB RESILIENT BASE
RD ROOF DRAIN
REF REFERENCE
REINF REINFORCED, REINFORCING
REQ'D REQUIRED
RES RESILIENT
REV REVISION
RH RIGHT HAND
RHR RIGHT HAND REVERSE
RL RAIN LEADER
RM ROOM
RTU ROOFTOP UNIT
RUB RUBBER
ROW RIGHT OF WAY

S
S SOUTH
SE SOUTHEAST
S/A SUPPLY AIR
SCHED SCHEDULE
SECT SECTION
SIM SIMILAR
SF SQUARE FOOT
SPECS SPECIFICATIONS
SS SERVICE SINK
SST STAINLESS STEEL
STD STANDARD
STL STEEL
STND STAINED
STOR STORAGE
STRUCT STRUCTURAL
SUSP SUSPENDED
S/CONC SEALED CONCRETE
SQ SQUARE
SW SOUTHWEST
SYM SYMMETRICAL
SYS SYSTEM

T
T TREAD
T&B TOP AND BOTTOM
T&G TONGUE AND GROOVE
TC TOP OF CURB
TEL TELEPHONE
TEMP TEMPORARY
THK THICK, THICKNESS
TO TOP OF
TOC TOP OF CONCRETE
TOS TOP OF STEEL
TOW TOP OF WALL
TS TRANSPARENT
TYP TYPICAL

U
UC UNDERCUT
UH UNIT HEATER
UNFIN UNFINISHED
UNO UNLESS NOTED OTHERWISE
UTIL UTILITY

V
VB VAPOR BARRIER
VCT VINYL COMPOSITION TILE
VERT VERTICAL
VIF VERIFY IN FIELD
VTR VENT THROUGH ROOF
VWC VINYL WALL COVERING

W
W WIDTH, WEST
W/ WITH
W/O WITHOUT
WC WATER CLOSET, WALL COVERING
WD WOOD
WGL WIRE GLASS
WH WATER HEATER
WP WATERPROOFING
WT WEIGHT
WWM WELDED WIRE MESH

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SEAL AR # 96512

PROJECT
Park Place at Douglas
Douglas Ave
Altamonte Springs Florida

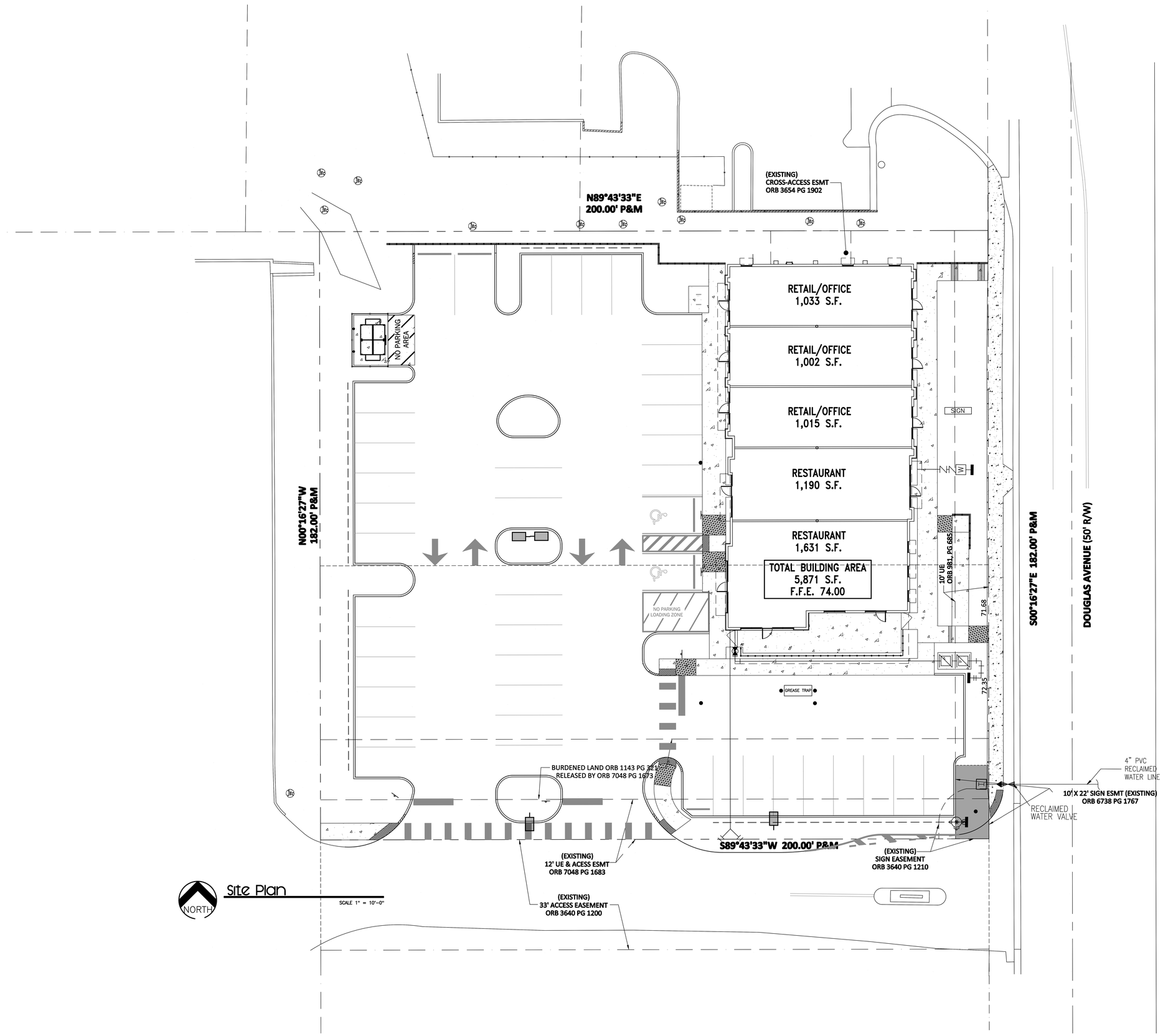
REVISION DATES

DATE
9-4-24

SHEET TITLE
COVER SHEET

SHEET NUMBER
A0

PROJECT NO.
012–24



Site Plan

SCALE 1" = 10'-0"

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PROJECT

Park Place at Douglas
Douglas Ave
Altamonte Springs Florida

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DATE
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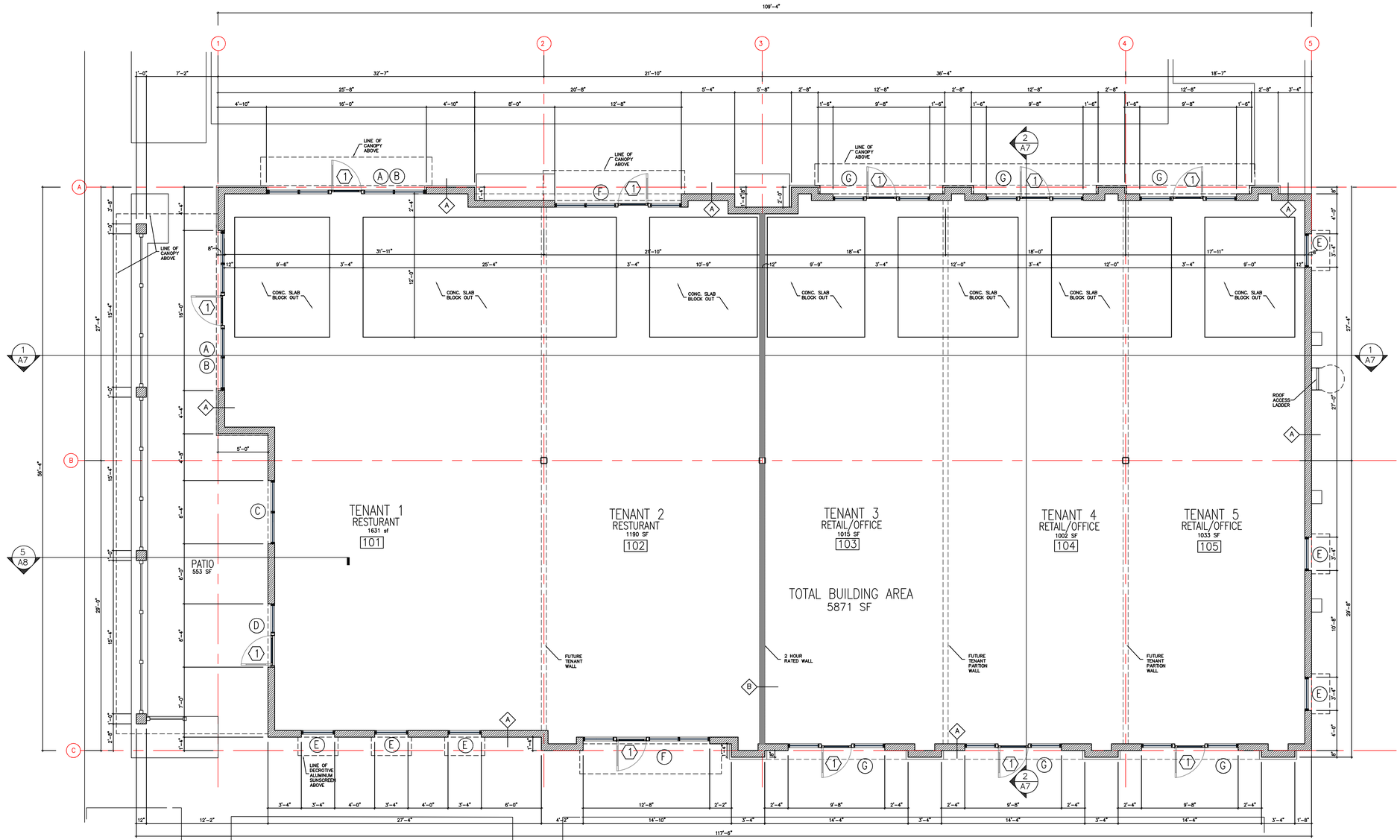
SHEET TITLE
SITE PLAN

SHEET NUMBER
A1

PROJECT NO.
012-24



NORTH

Building Plan

SCALE 1/4" = 1'-0"

PLAN LEGEND

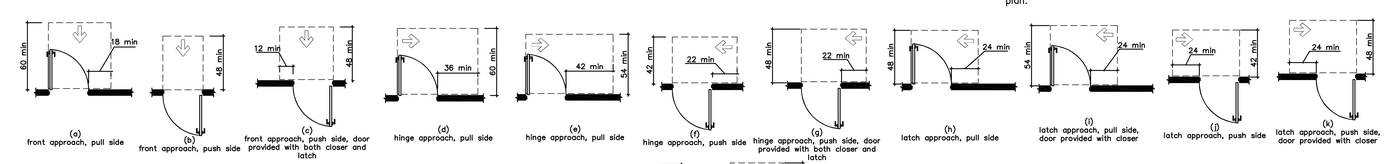
- CMU WALL
- NEW MTL STUD WALL
- 101 ROOM NUMBER
- A WALL TYPE
- FIRE EXTINGUISHER
- A WINDOW DESIGNATION
- 1 DOOR DESIGNATION
- 1 / A1 SECTION DETAIL SHEET LOCATION
- 1 / A1 ENLARGED DETAIL DESIGNATION
- A1 / 1 INTERIOR ELEVATION DESIGNATION
- 1 EQUIPMENT DESIGNATION

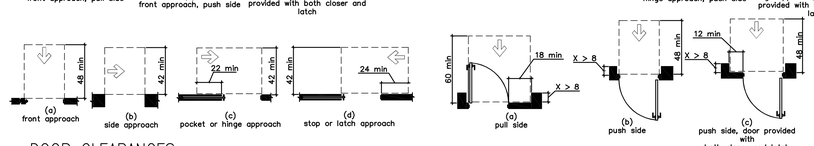
Plan Notes

1. All dimensions are plus or minus and subject to verification of existing dimensions in field by Contractor.
2. All dimensions shown are finish dimensions and walls are nominally 5" thick unless otherwise indicated on the plans.
3. All interior non-bearing wall partitions shall be 3 5/8" metal studs at 24" o.c. maximum with ½" gypsum board on each side unless otherwise indicated on the plans.
4. Cabinetry elevations (when shown) are for reference only. Supplier shall submit shop drawings for approval by owner prior to fabrication.
5. All exit doors shall be operable from the inside without special knowledge or effort or the use of a key and shall meet all applicable codes.
6. All interior finishes shall meet the restrictions of 2023 FBC
7. Coordinate finish and hardware schedule with project manager/ owner.
8. Verify exact location of all switches, electrical, telecommunication and phone outlets with project manager/owner.

Accessibility Notes

1. All work shall comply with all applicable provisions of the Florida Accessibility Code.
2. Work shall include, but not limited to, all designated parking spaces, ramps, thresholds, clearances, heights, corridors, doors, hardware and toilet room requirements.
3. Provide lever type hardware on all personnel doors and sinks.
4. All accessories for Toilet rooms shall meet all applicable requirements of the Florida Accessibility Code.
5. Maintain 5'-0" turning diameter or 'T' turning area in Toilet rooms as indicated on the plans.
6. Provide blocking in Toilet rooms to support grab bars. Garb bars shall support 250 pounds minimum.
7. Insulate drain and hot water pipes in Toilet rooms as per code.
8. See interior elevations and details for additional information not shown on plan.





DOOR CLEARANCES

SCALE 1/4" = 1'-0"

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SEAL AR # 96512

PROJECT

Park Place at Douglas
Douglas Ave
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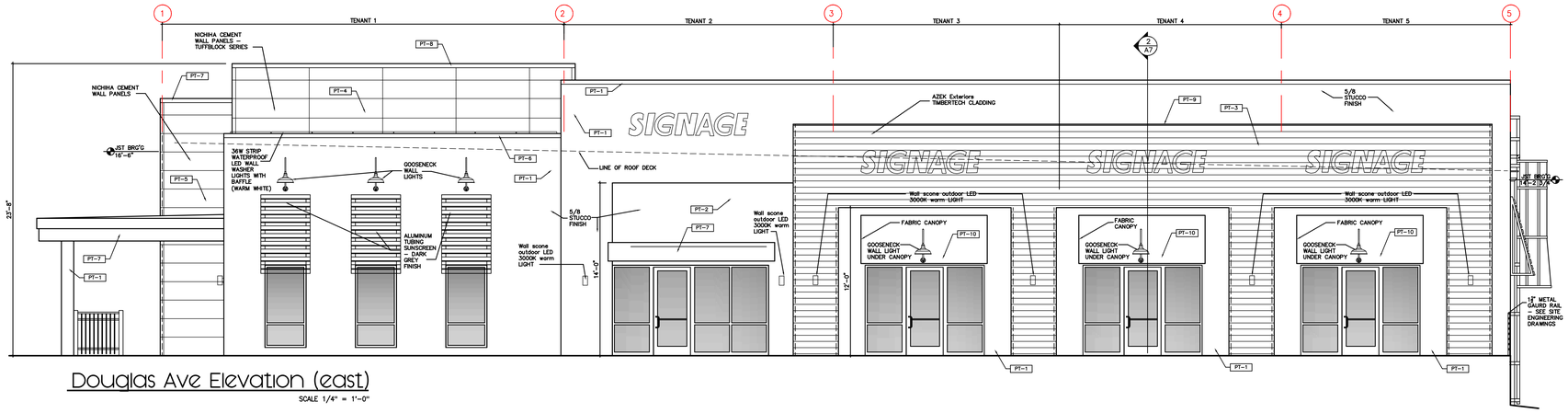
DATE
9-4-24

SHEET TITLE
FLOOR PLAN

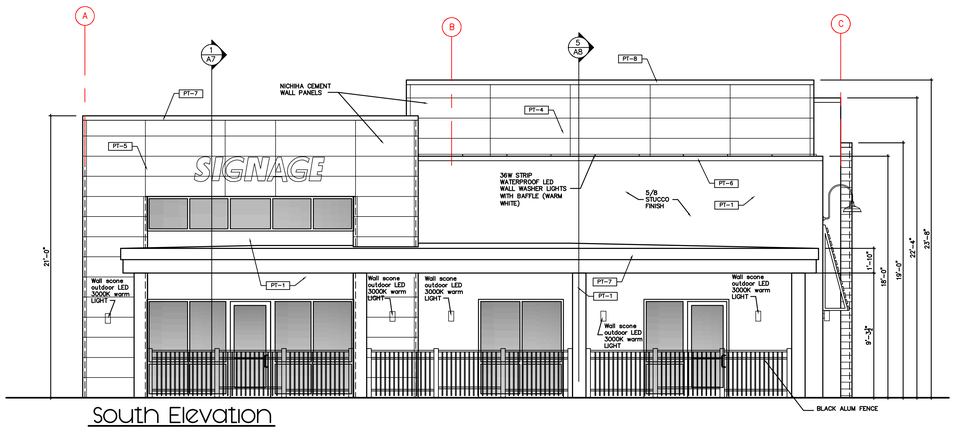
SHEET NUMBER
A2

PROJECT NO.
012-24



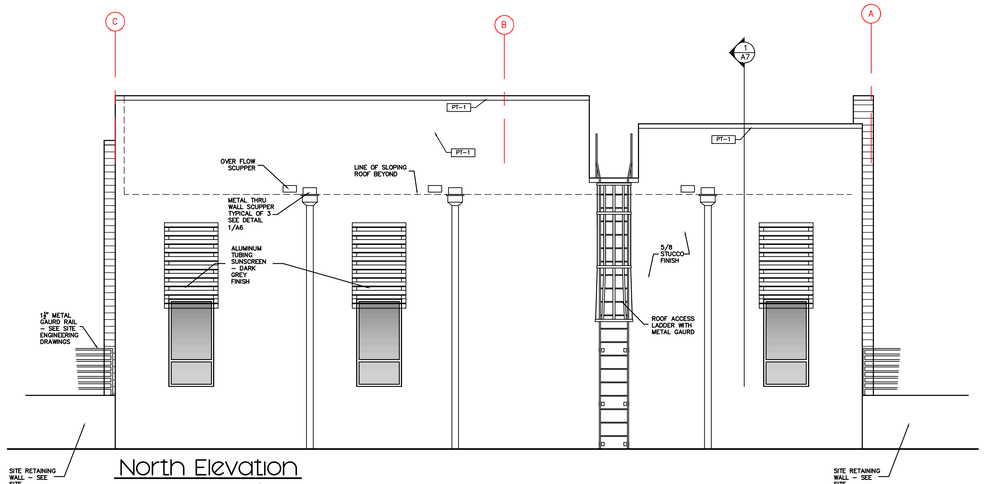
Douglas Ave Elevation (east)

SCALE 1/4" = 1'-0"



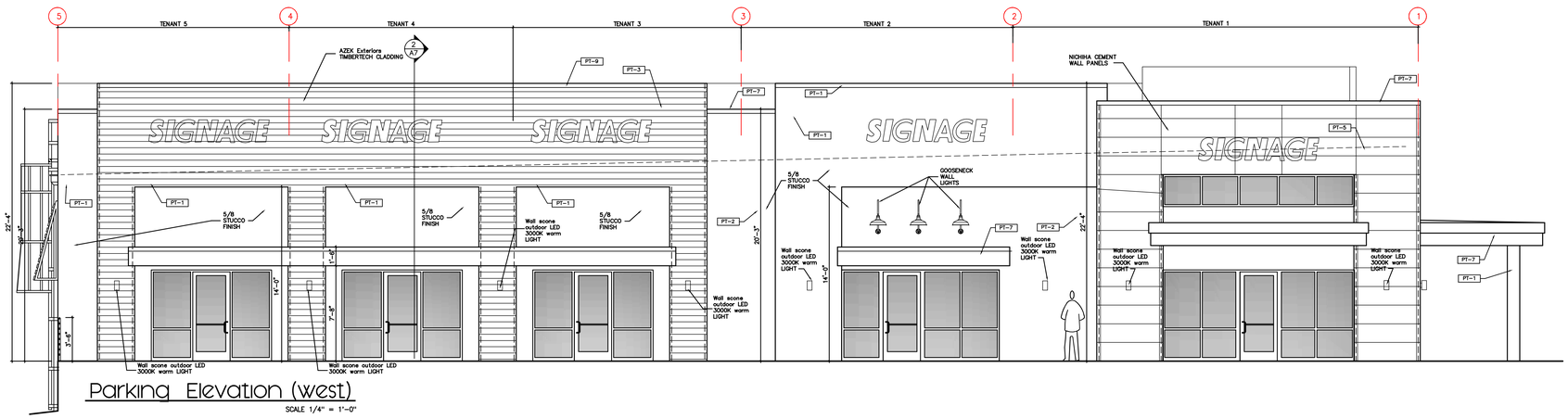
South Elevation

SCALE 1/4" = 1'-0"



North Elevation

SCALE 1/4" = 1'-0"



Parking Elevation (west)

SCALE 1/4" = 1'-0"

EXTERIOR FINISH SCHEDULE

TAG	LOCATION/TYPE	MANUFACTURE	PRODUCT	DESCRIPTION
PT-1	STUCCO (WHITE)	SHERWIN WILLIAMS	7008	ALABASTER (FLAT)
PT-2	STUCCO (DARK GREY)	SHERWIN WILLIAMS	6236	GRAYS HARBOR (FLAT)
PT-3	FAUX WOOD SIDING	TEMBERTECH	COMPOSITE MATERIAL	MIXED COLOR STAGGERED PATERN weathered teak, mahogony, cypress

PT-4	CEMENT PANEL SIDING	NICHIHA	TUFFBLOCK	COLOR –BAMBOO
PT-5	CEMENT PANEL SIDING	NICHIHA	CORBOSA SERIES	COLOR – MOONDUST
PT-6	METAL COPING/FLASHING	PAC–CLAD	–	BONE WHITE
PT-7	METAL COPING/FLASHING/CANOPIES	PAC–CLAD	–	BURNISHED SLATE
PT-8	METAL COPING/FLASHING	PAC–CLAD	–	SIERRA TAN
PT-9	METAL COPING/FLASHING	PAC–CLAD	–	MANSARD BROWN
PT-10	FABRIC CANOPY	–	FABRIC	BLACK

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PROJECT

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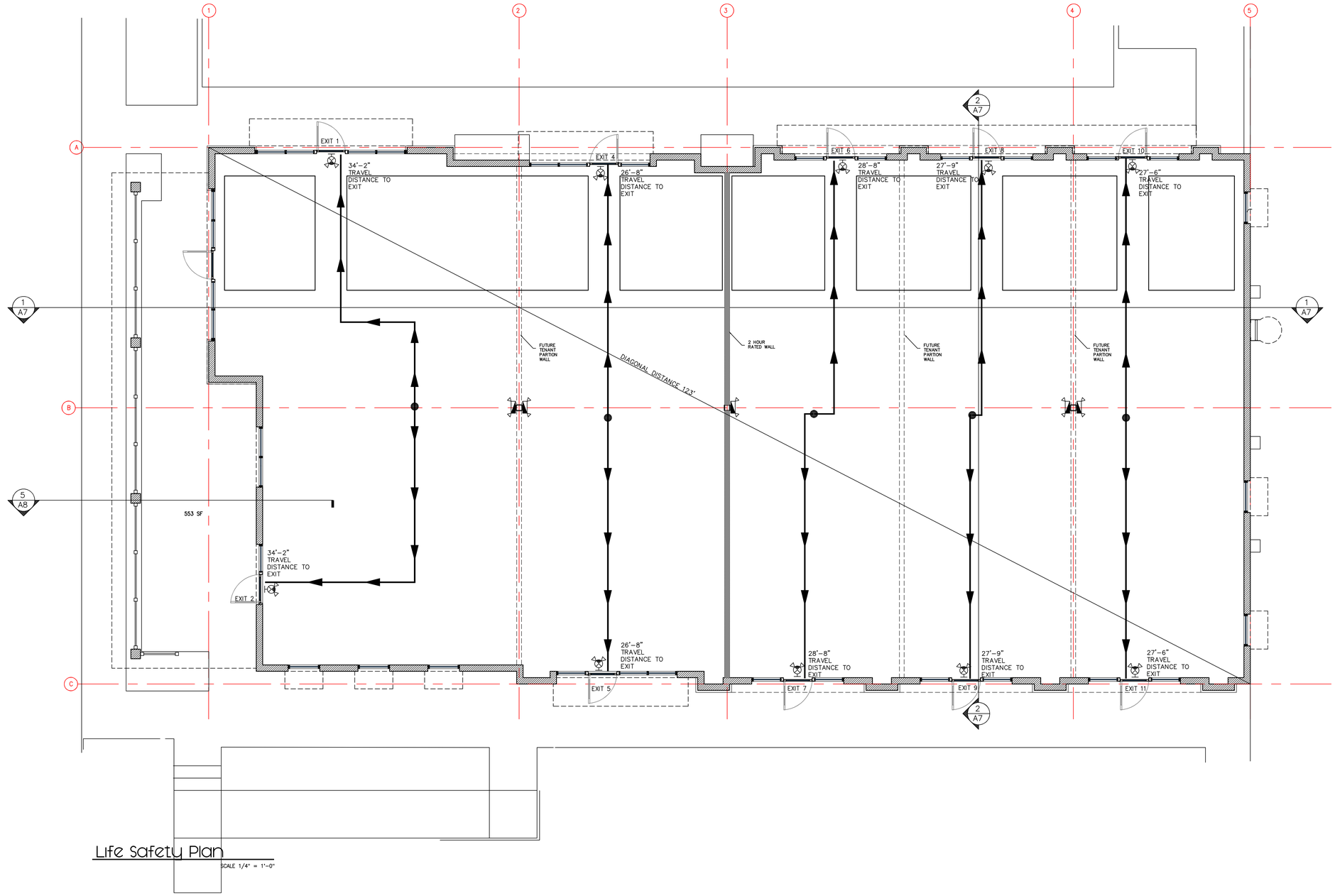
SHEET TITLE
ELEVATIONS

SHEET NUMBER
A3

PROJECT NO.
012-24



Life Safety Plan

SCALE 1/4" = 1'-0"

LIFE SAFETY SUMMARY

* INDICATES PER NFPA 101 STANDARDS

SPACE DE	OCCUPANCY CLASSIFICATION	AREA OF SPACE	S.F. PER OCCUPANT	OCCUPANT LOAD	EGRESS WIDTH REQUIRED (HORIZ)	EGRESS WIDTH PROVIDED (HORIZ)
TENANT 1 101	ASSEMBLY (future resturant)	1,631 SF	15 / 15*	109 / 109*	109x0.20"=21.8" 109x0.20"=21.8"*	66" EXITS 1, 2
TENANT 2 102	ASSEMBLY (future resturant)	1,190 SF	15 / 15*	80 / 80*	80x0.20"=16" 80x0.20"=16"*	66" PROVIDED EXITS 4, 5
TENANT 3 103	MERCANTILE (future retail)	1,015 SF	60 / 30*	17 / 34*	17x0.20"=3.4" 34x0.20"=6.8"*	66" PROVIDED EXITS 6, 7
TENANT 4 104	MERCANTILE (future retail)	1,002 SF	60 / 30*	17 / 34*	109x0.20"=21.8" 109x0.20"=21.8"*	66" PROVIDED EXITS 8, 9
TENANT 5 105	MERCANTILE (future retail)	1,033 SF	60 / 30*	18 / 35*	18x0.20"=3.6" 35x0.20"=7"*	66" PROVIDED EXITS 10, 11

NOTE: OCCUPANT LOADS INDICATED IN THIS TABLE ARE FOR FUTURE USE AND ARE MAXIMUM. THE AREA OF TENANT SPACES SHOWN IN THIS TABLE DO NOT TAKE ACCOUNT FOR OTHER POTENTIAL USE CLASSIFICATION OF TENANT SPACE OR EVEN UNOCCUPIED SPACES SUCH AS TOILETS. THEREFORE OCCUPANT LOADS FOR FUTURE TENANT BUILDOUTS WILL BE LESS THAN WHAT IS SHOWN. THOSE BUILDOUTS AND SEPEARTE LIFE SAFETY EVAULATIONS WILL BE UNDER SEPERATE PERMIT. THIS BUILDING WILL NOT BE OCCUPIED AS A VANILLA SHELL.

FE — FIRE EXTINGUISHER 2A-10BC FIRE EXP. MOUNTED IN APPROVED FIRE EXTINGUISHER WALL CABINET

EXIT PATH

EXIT/EMERGENCY LIGHT W/ BATTERY BACKUP

CEILING MOUNTED EMERGENCY BATT BACK UP LIGHTING

WALL MOUNTED EMERGENCY BATT BACK UP LIGHTING

CEILING MOUNTED EXIT SIGN

WALL MOUNTED EXIT SIGN

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PROJECT

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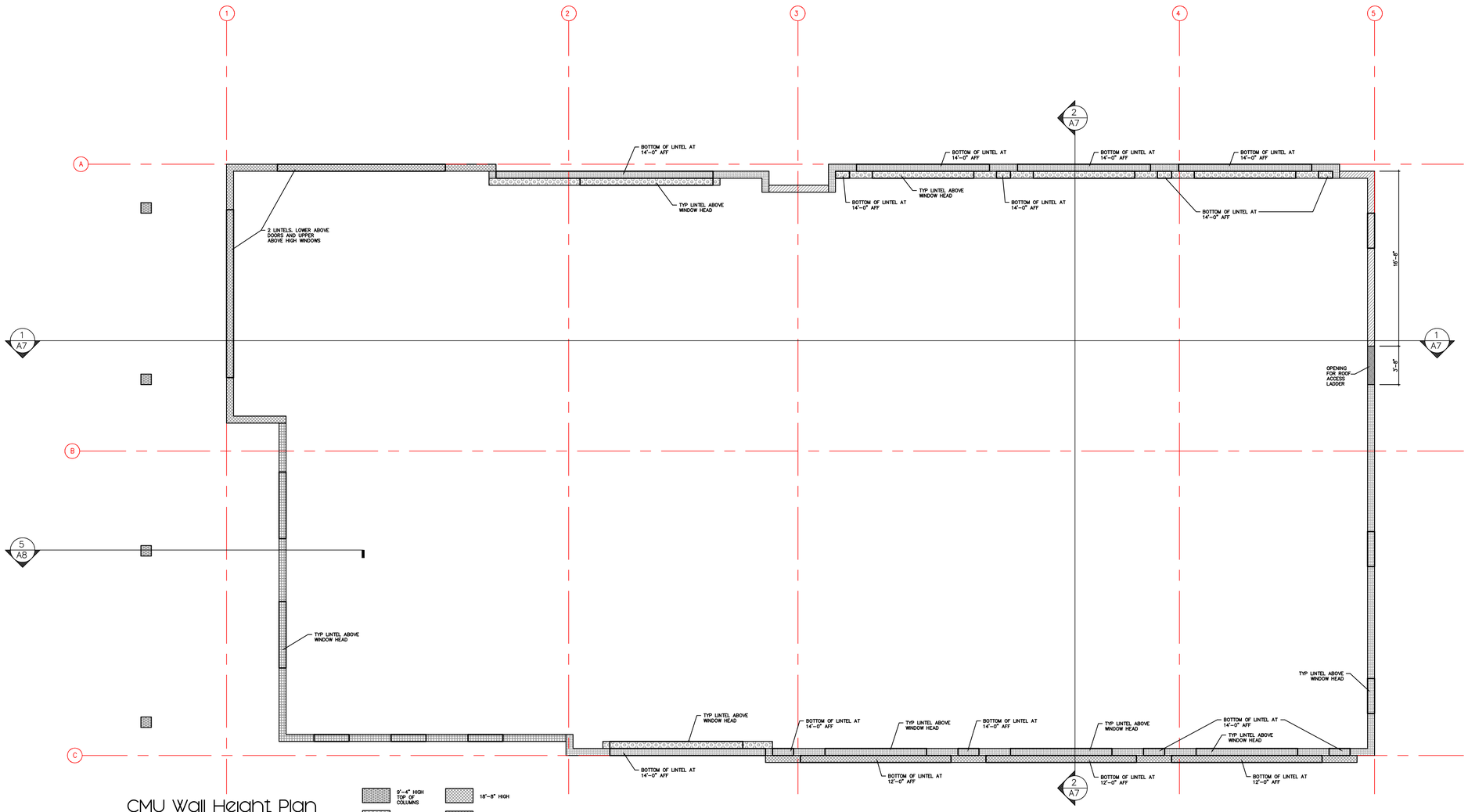
SHEET TITLE
FLOOR PLAN

SHEET NUMBER
A4

PROJECT NO.
012-24



CMU Wall Height Plan

SCALE 1/4" = 1'-0"

9'-4" HIGH TOP OF COLUMNS	18'-8" HIGH
14'-8" HIGH	20'-0" HIGH
16'-0" HIGH	20'-8" HIGH
18'-0" HIGH	22'-0" HIGH

CMU WALL HEIGHT KEY

HEIGHTS MEASURED FROM MAIN FLOOR SLAB

PNM ARCHITECTURE

PAUL N MEDLEY Architect
AIA NCARB

101 Smokerise Blvd
Longwood FL 32779
PHONE NUMBER 407-701-6440
WWW.PNM-ARCHITECTURE.COM

SEAL AR # 96512

PROJECT

Park Place at Douglas
Douglas Ave
Altamonte Springs Florida

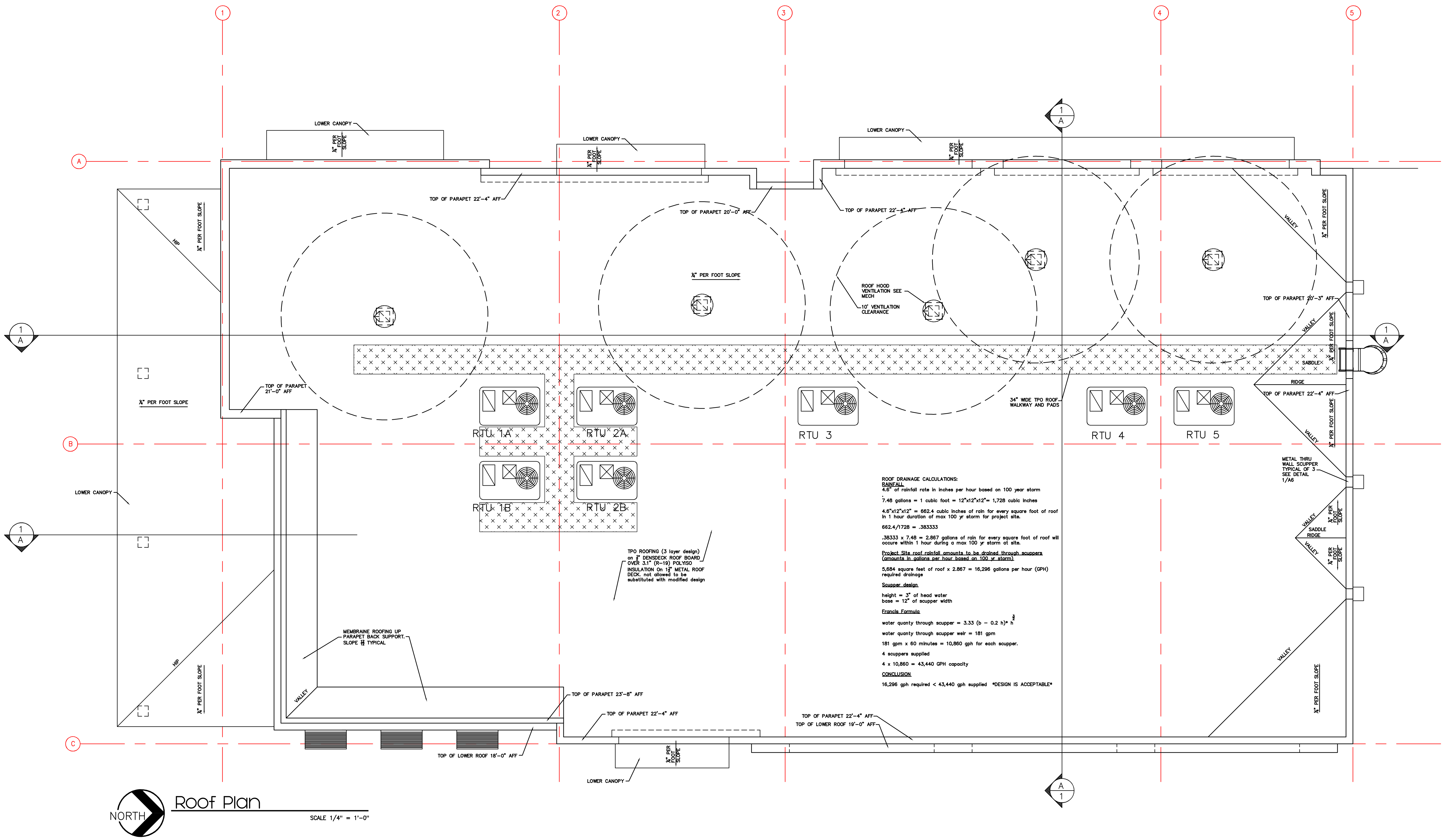
REVISION DATES

DATE
9-4-24

SHEET TITLE
CMU WALL HEIGHTS

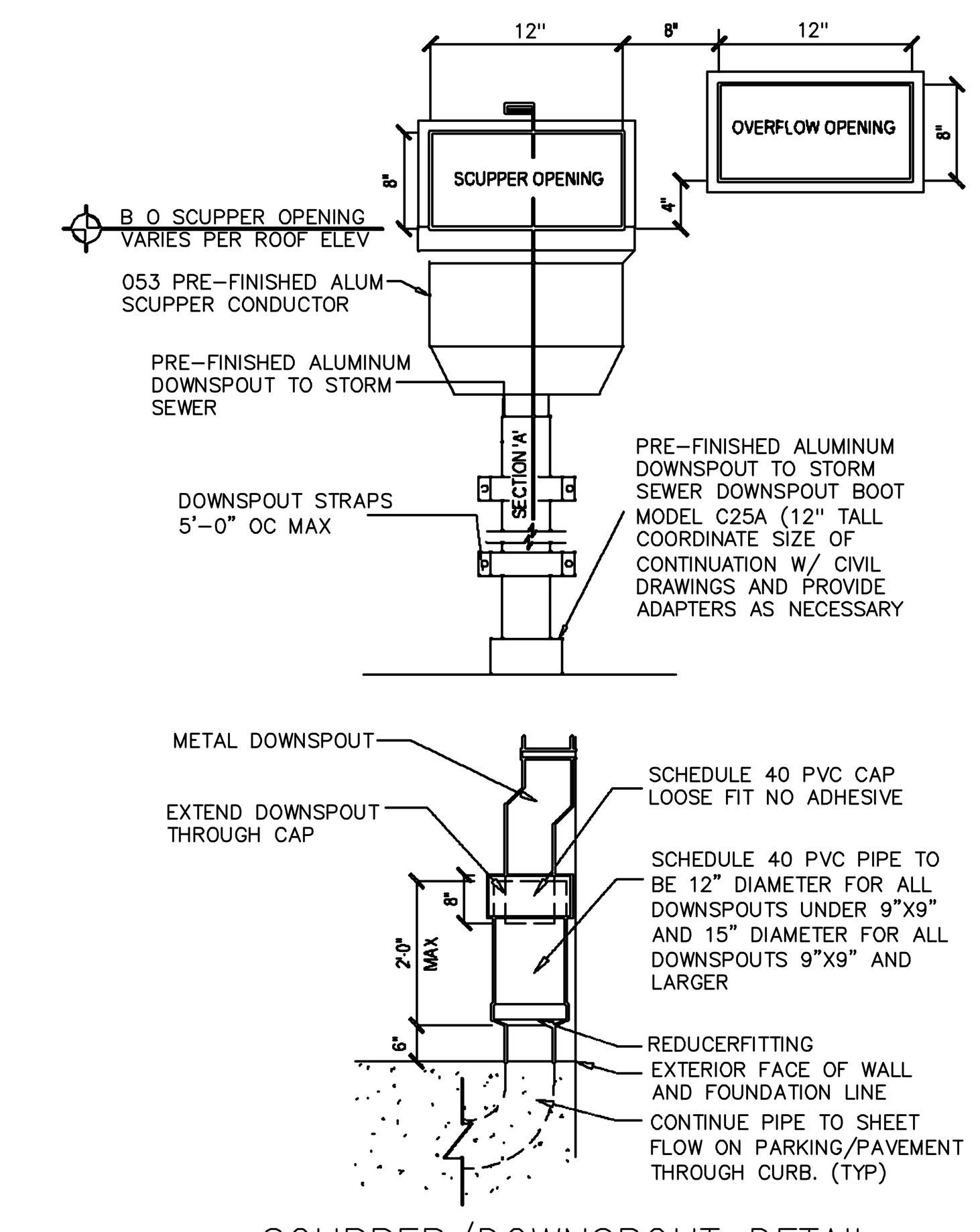
SHEET NUMBER
A5

PROJECT NO.
012-24



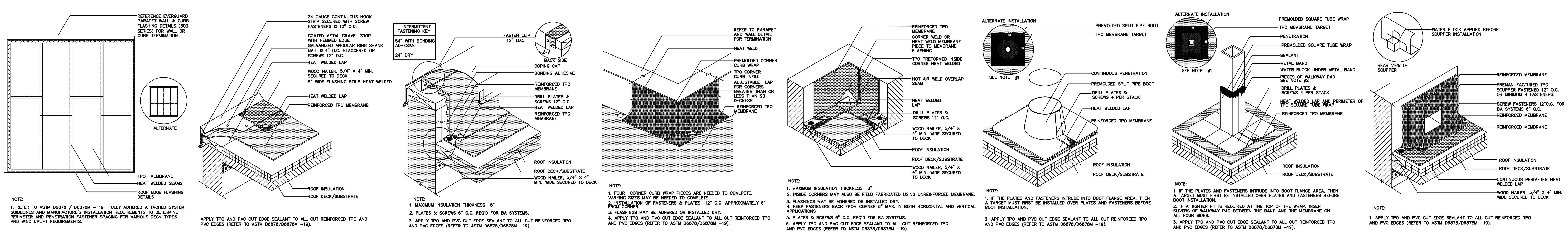
Roof Plan

SCALE 1/4" = 1'-0"



1/A6 SCUPPER/DOWNSPOUT DETAIL

SCALE 1/2" = 1'-0"



2/A6 TPO ROOFING DETAILS

N.T.S.

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SEAL AR # 96512

PROJECT

Park Place at Douglas
Douglas Ave
Altamonte Springs Florida

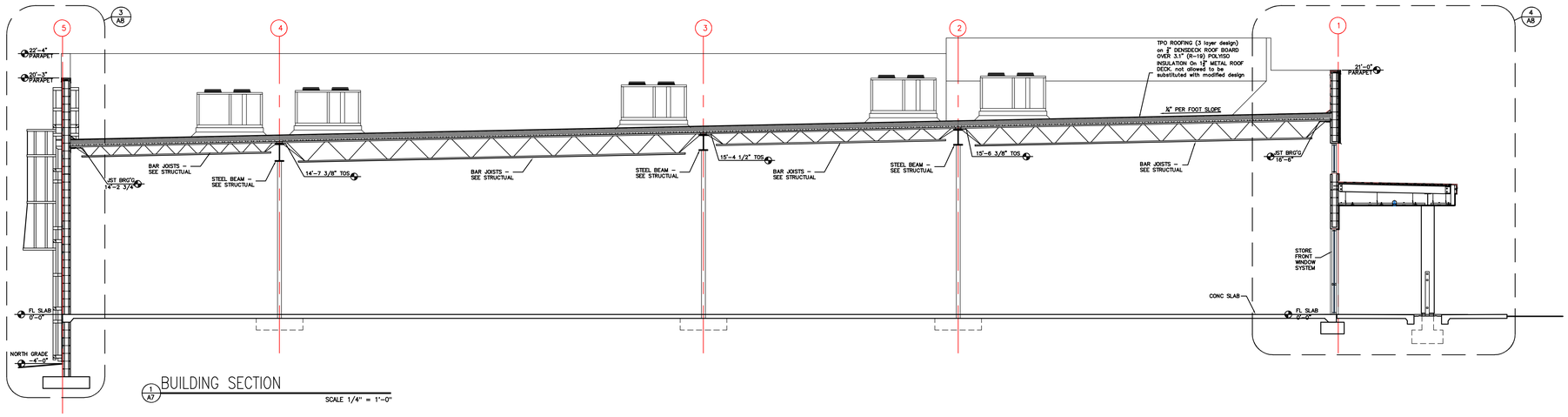
REVISION DATES

DATE
9-4-24

SHEET TITLE
FLOOR PLAN

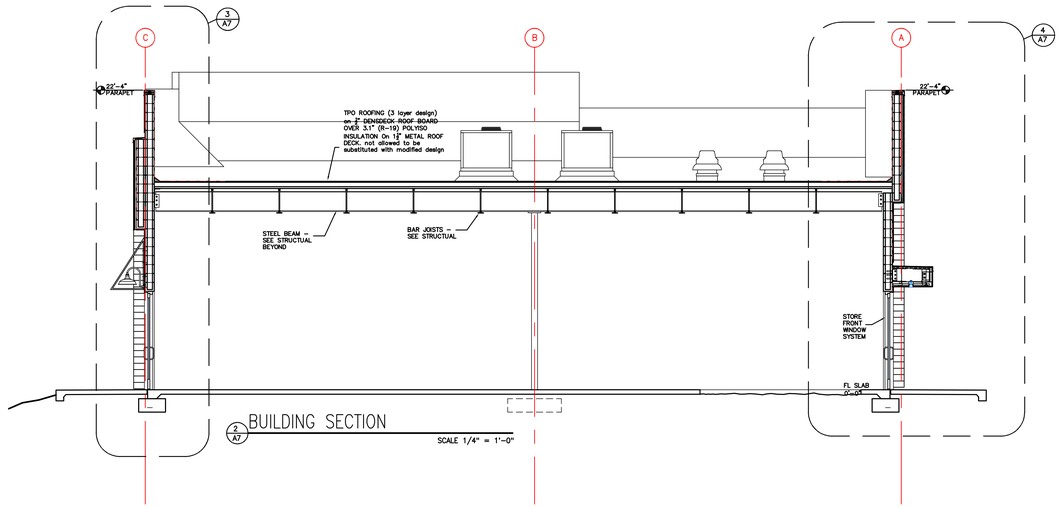
SHEET NUMBER
A6

PROJECT NO.
012-24



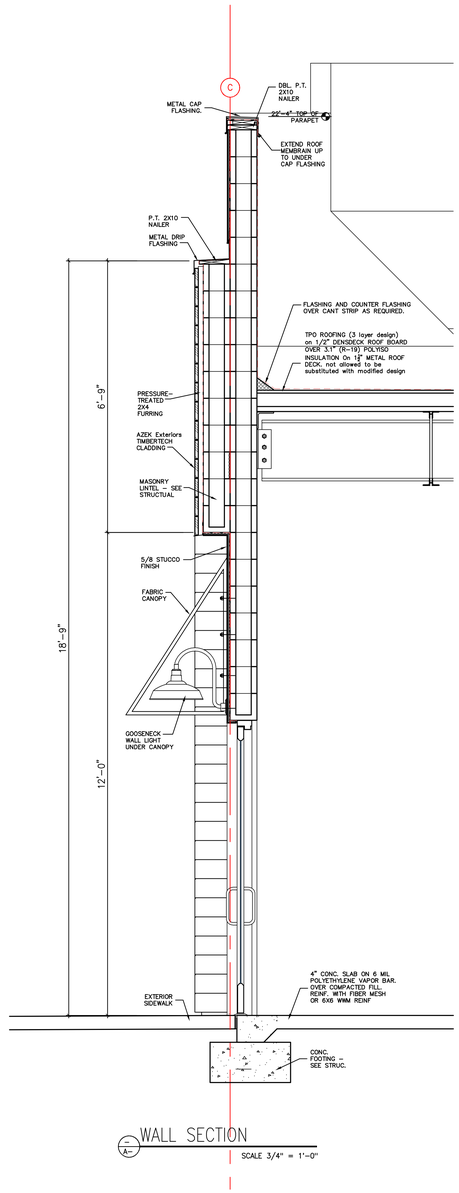
1 A7 BUILDING SECTION

SCALE 1/4" = 1'-0"



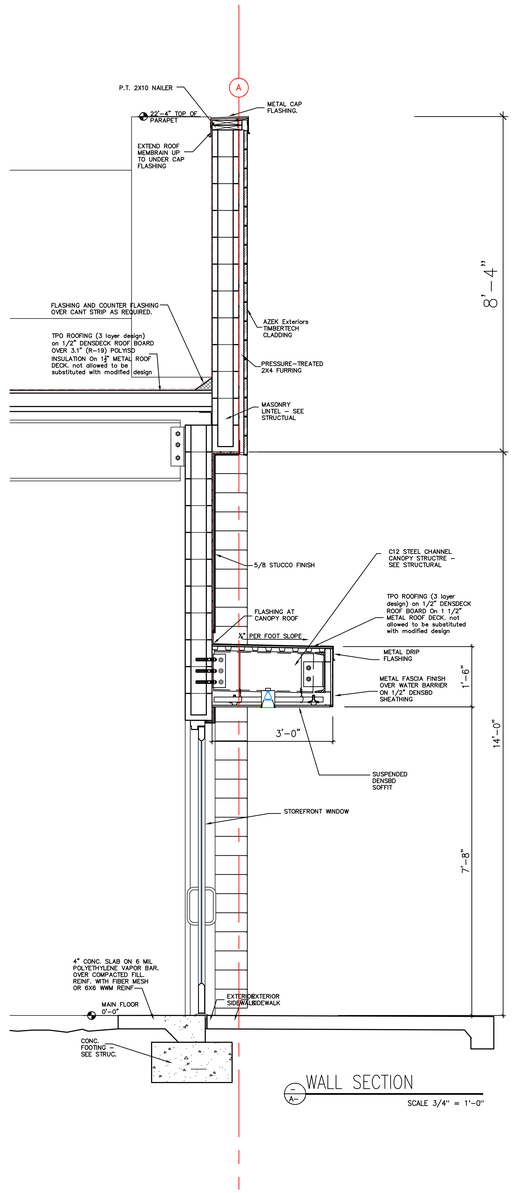
2 A7 BUILDING SECTION

SCALE 1/4" = 1'-0"



A WALL SECTION

SCALE 3/4" = 1'-0"



A WALL SECTION

SCALE 3/4" = 1'-0"

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SEAL AR # 96512

PROJECT

Park Place at Douglas
Douglas Ave
Altamonte Springs Florida

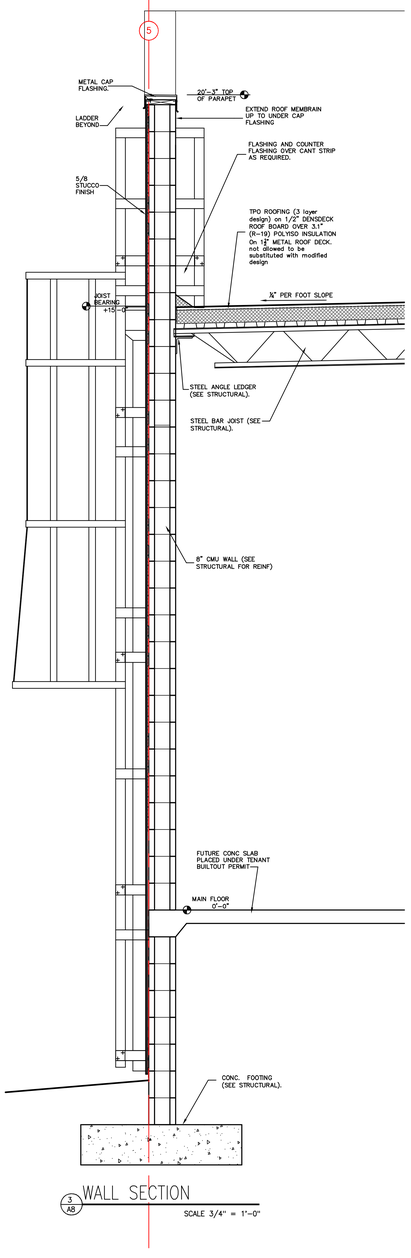
REVISION DATES

DATE
9-4-24

SHEET TITLE
BUILDING & WALL SECTIONS

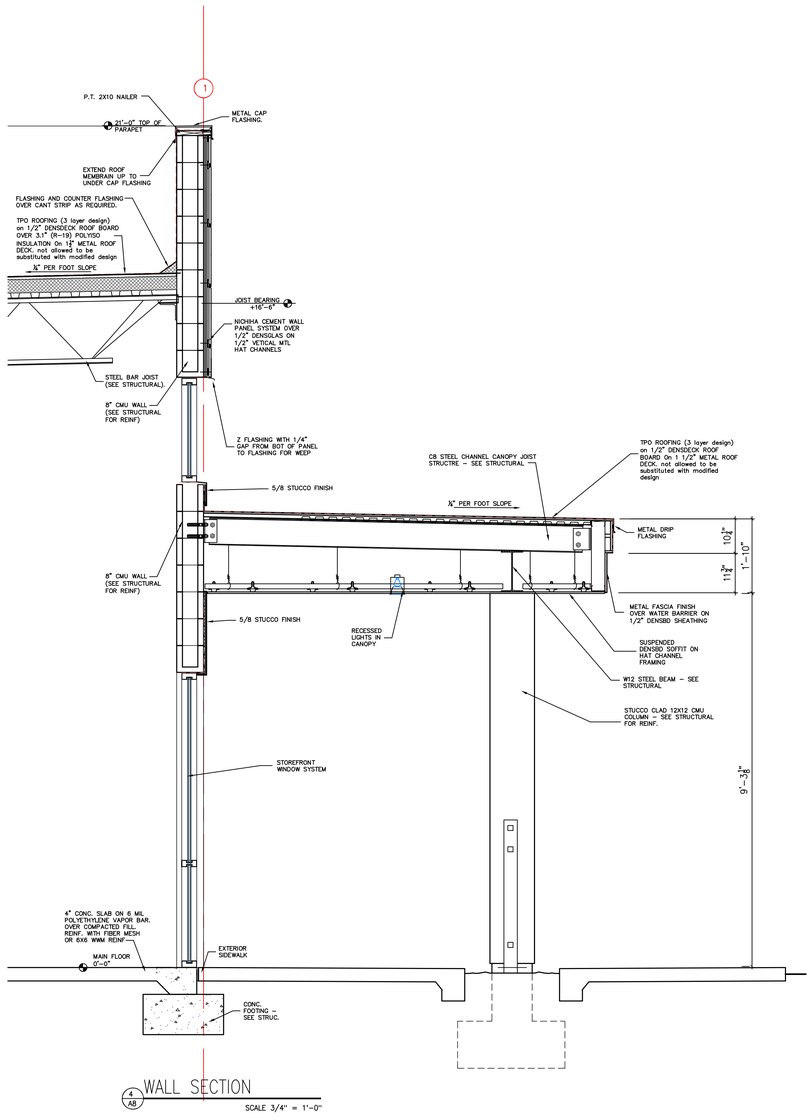
SHEET NUMBER
A7

PROJECT NO.
012-24



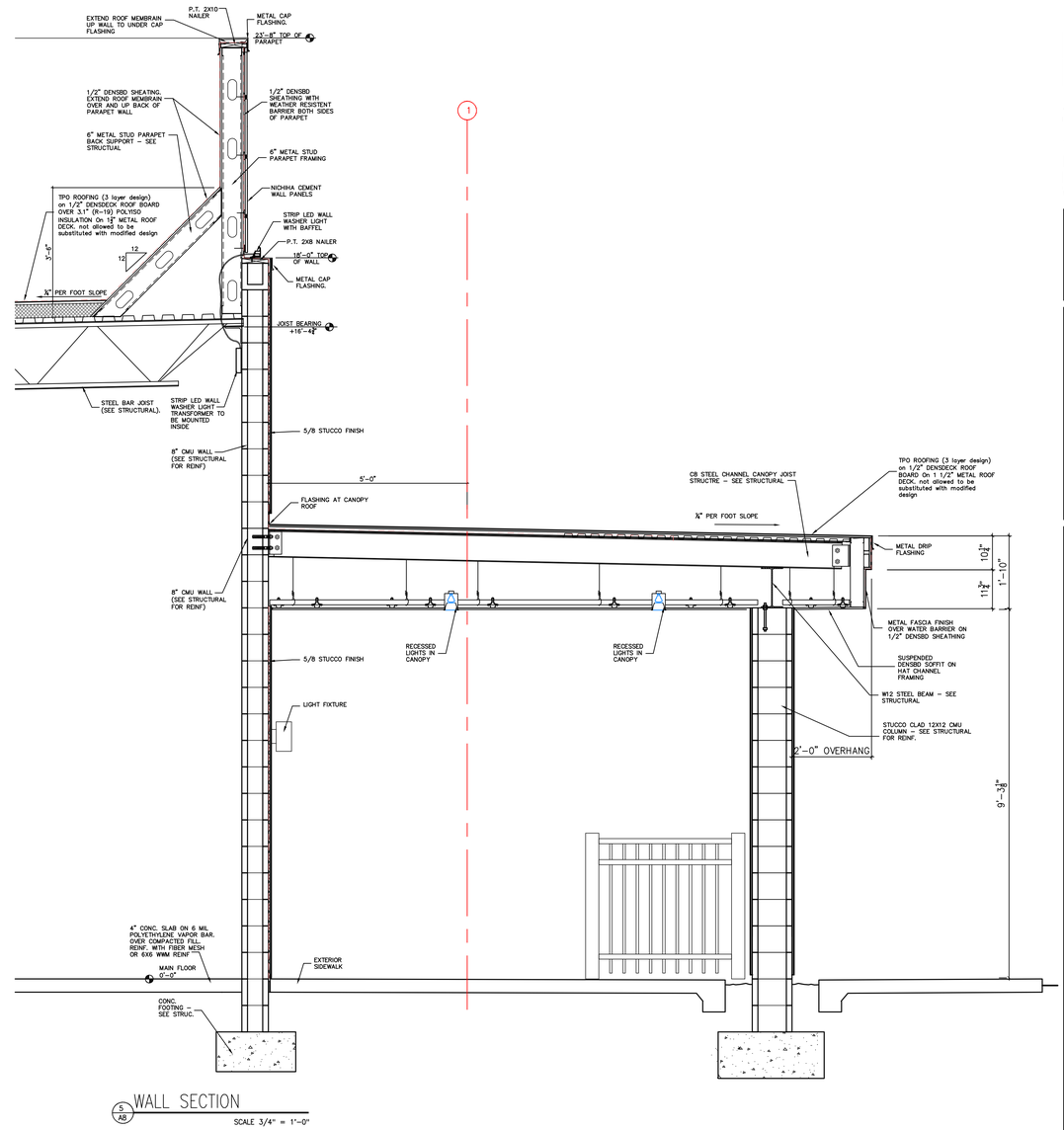
3/A8 WALL SECTION

SCALE 3/4" = 1'-0"



4/A8 WALL SECTION

SCALE 3/4" = 1'-0"



5/A8 WALL SECTION

SCALE 3/4" = 1'-0"

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SEAL AR # 96512

PROJECT

Park Place at Douglas
Douglas Ave
Altamonte Springs Florida

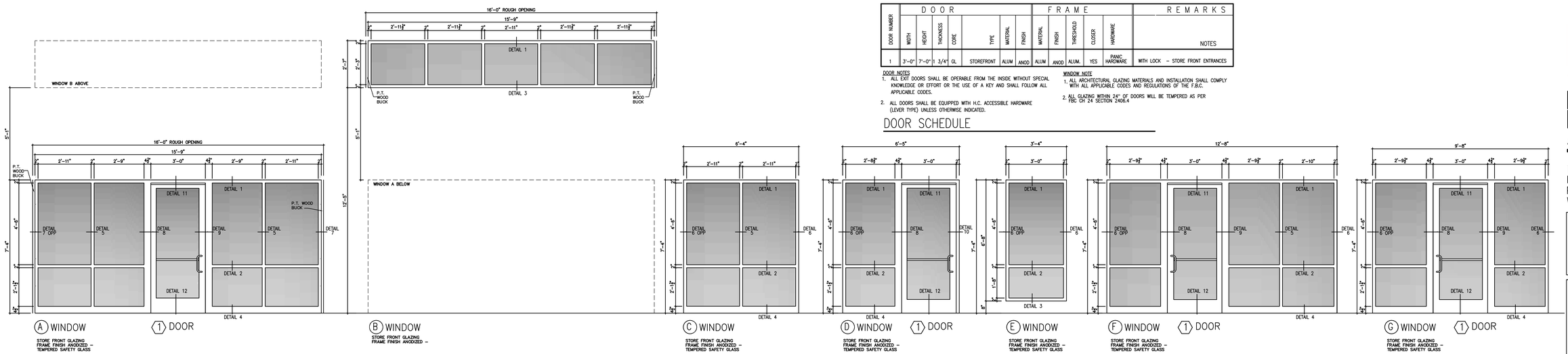
REVISION DATES

DATE
9-4-24

SHEET TITLE
WALL SECTIONS

SHEET NUMBER
A8

PROJECT NO.
012-24



DOOR NUMBER	DOOR WIDTH	DOOR HEIGHT	DOOR THICKNESS	DOOR CORE	DOOR TYPE	DOOR MATERIAL	DOOR FINISH	FRAME MATERIAL	FRAME FINISH	FRAME THRESHOLD	FRAME CLOSER	FRAME HARDWARE	REMARKS NOTES
1	3'-0"	7'-0"	1 3/4"	GL	STOREFRONT	ALUM	ANOD	ALUM.	ANOD	ALUM.	YES	PANIC HARDWARE	WITH LOCK – STORE FRONT ENTRANCES

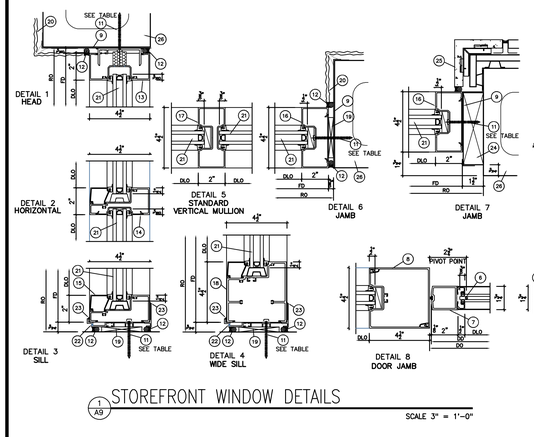
DOOR NOTES
1. ALL EXIT DOORS SHALL BE OPERABLE FROM THE INSIDE WITHOUT SPECIAL KNOWLEDGE OR EFFORT OR THE USE OF A KEY AND SHALL FOLLOW ALL APPLICABLE CODES.
2. ALL DOORS SHALL BE EQUIPPED WITH H.C. ACCESSIBLE HARDWARE (LEVER TYPE) UNLESS OTHERWISE INDICATED.

WINDOW NOTE
1. ALL ARCHITECTURAL GLAZING MATERIALS AND INSTALLATION SHALL COMPLY WITH ALL APPLICABLE CODES AND REGULATIONS OF THE F.B.C.
2. ALL GLAZING WITHIN 24" OF DOORS WILL BE TEMPERED AS PER FBC CH 24 SECTION 2406.4

DOOR SCHEDULE

DOOR/ WINDOW ELEVATIONS

SCALE 1/2" = 1'-0"

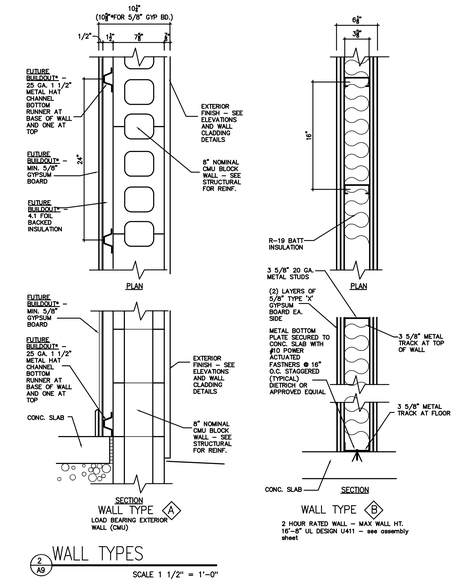


KEY NOTES	
	PART DESCRIPTION
1	TOP RAIL
2	CONCEALED CLOSER
3	BOTTOM RAIL
4	ACCESSIBLE THRESHOLD
5	DOOR GLASS, TEMPERED SAFETY GLASS
6	PIVOT POINT
7	DOOR STILE
8	WIDE JAMB
9	SELF ADHERED FLASHING – WRAP OVER EXTERIOR SUBSTRATE TYPD R.O.
10	DOOR JAMB TO WALL
11	ANCHOR SEE TABLE
12	BACKERROD AND SEALANT ALLOW WEEPS AT BASE FOR DRAINAGE FROM BEHIND
13	HEAD
14	HORZ MULLION
15	SILL
16	JAMB
17	VERT MULLION
18	WIDE SILL
19	SHIM SUPPORT
20	STUCCO FINISH
21	GLASS
22	WEEP
23	CONTINUOUS SEALANT
24	P.T. 2X6 WOOD BUCK WITH ¼" x 3.25" TAPCON @ 16" O.C.
25	NICHIHA FACTORY OUTSIDE CORNER CLADDING.
26	CMU STRUCTURE

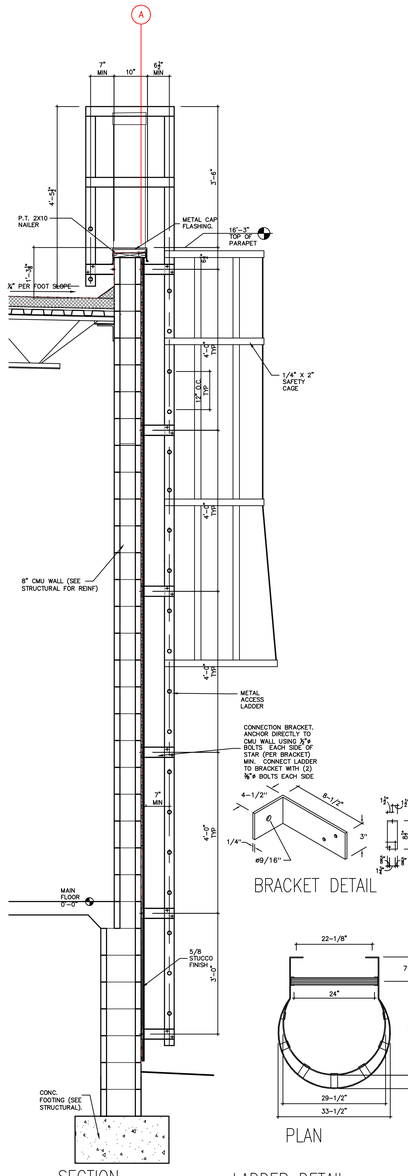
FRAME ANCHOR TABLE			
OPENING TYPE (SUBSTRATE)	FRAME TO OPENING FASTENER TYPE	MINIMUM EMBED	MINIMUM EDGE DIST
MIN. 2X4 WD FRAME OR BUCK (MIN. GR. 3 & G=0.55)	NO. 14 SMS OR WOOD SCREW	1⅜"	¾"
MIN. 16 GA. 33 KSI METAL STUD	¼-14 GR. 5 SELF TAP/DRILL SCREW	FULL	½"
MIN. ⅛" THK A36 STEEL	¼-14 GR. 5 SELF TAP/DRILL SCREW	FULL	½"
MIN. ⅛" THK 6063-T5 ALUM.	¼-14 GR. 5 SELF TAP/DRILL SCREW	FULL	½"
MIN. C-90 CMU (SIDES ONLY)	¼" CONCRETE SCREW*	1 ¼"	2"
MIN. 3000 PSI CONCRETE	¼" CONCRETE SCREW*	1 ¼"	2"
* CONCRETE SCREWS SHALL BE ELCO ULTRACONS, ELCO CRETE-FLEX, ITW RAMSET/RED HEAD TAPCONS OR HILTI KWIK-CON II (HARDENED STEEL OR S.S.) ** REFER TO WINDOW SUPPLIER'S SHOP DRAWINGS FOR MINIMUM NUMBER OF ANCHORS			

STOREFRONT WINDOW DETAILS

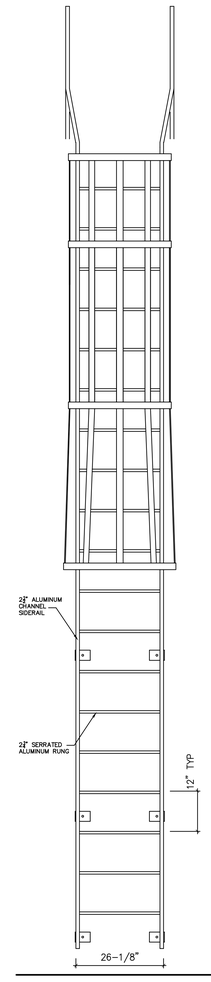
1/A9 — SCALE 3" = 1'-0"



2/A9 WALL TYPES — SCALE 1 1/2" = 1'-0"



3/A9 LADDER DETAIL — SCALE 3/4" = 1'-0"



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SEAL AR # 96512

PROJECT

Park Place at Douglas
Douglas Ave
Altamonte Springs Florida

REVISION DATES

DATE 9-4-24

SHEET TITLE ELEVATIONS

SHEET NUMBER **A9**

PROJECT NO. 012-24

Design No. U411

BXUV — Fire Resistance Ratings — ANSI/UL 263 Certified for United States BXUV7 — Fire Resistance Ratings — CAN/ULC-S101 Certified for Canada

See General Information for Fire-resistance Ratings — ANSI/UL 263 Certified for United States Design Criteria and Allowable Variances

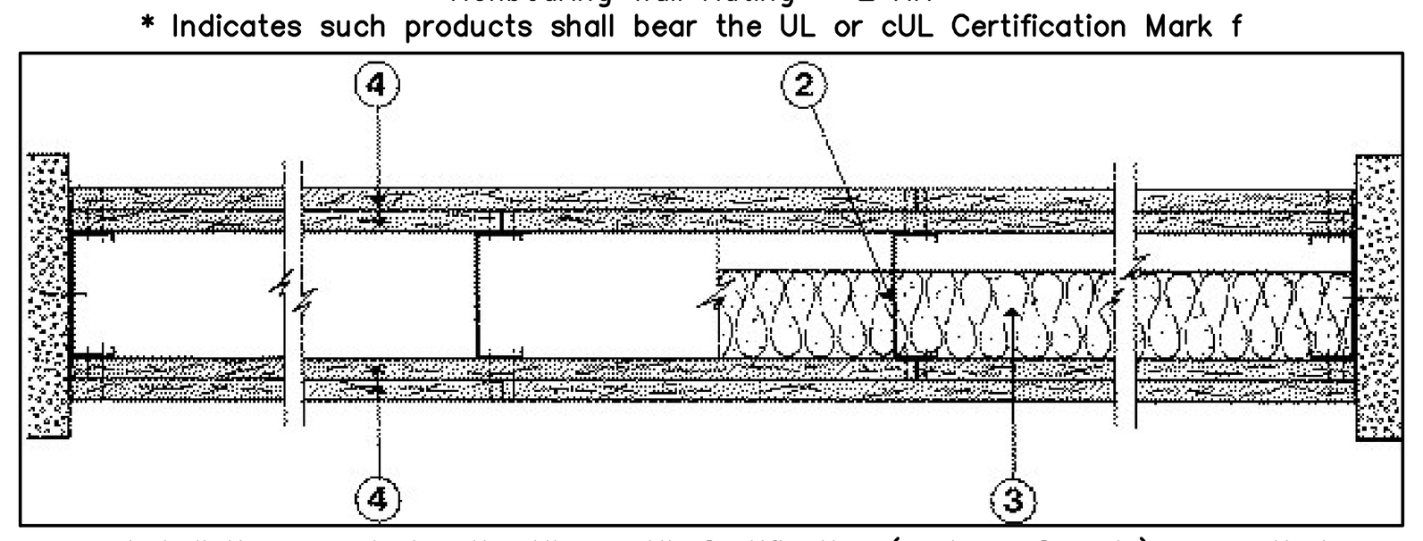
See General Information for Fire Resistance Ratings — CAN/ULC-S101 Certified for Canada Design Criteria and Allowable Variances

Design No. U411

February 16, 2024

Nonbearing Wall Rating — 2 Hr.

* Indicates such products shall bear the UL or cUL Certification Mark f



or jurisdictions employing the UL or cUL Certification (such as Canada), respectively.

1. Floor and Ceiling Runner — (Not Shown) — Min. 25 MSG galv steel, 1 in. return legs, 2-1/2 in. deep (min), attached to floor and ceiling with fasteners 24 in. OC max.

1A. Framing Members* — Floor and Ceiling Runners — (Not Shown) — As an alternate to Item 1 - For use with Item 2A, channel shaped, min 2-1/2 in. deep, attached to floor and ceiling with fasteners 24 in. OC. max.
ALLSTEEL & GYPSUM PRODUCTS INC — Type SUPREME D24/30EQD and Type SUPREME D20
CEMCO, LLC — Viper20™ Track
CONSOLIDATED FABRICATORS CORP, BUILDING PRODUCTS DIV — Type SUPREME D24/30EQD and Type SUPREME D20
MARINO/WARE, DIV OF WARE INDUSTRIES INC — Viper20™ Track
IMPERIAL MANUFACTURING GROUP INC — Viper20™ Track
QUAIL RUN BUILDING MATERIALS INC — Type SUPREME D24/30EQD and Type SUPREME D20
SCAFCO STEEL STUD MANUFACTURING CO — Type SUPREME D24/30EQD and Type SUPREME D20 STEEL CONSTRUCTION SYSTEMS INC — Type SUPREME D24/30EQD and Type SUPREME D20 TELLING INDUSTRIES L L C — Type SUPREME D24/30EQD and Type SUPREME D20
UNITED METAL PRODUCTS INC — Type SUPREME D24/30EQD and Type SUPREME D20

1B. Floor and Ceiling Runners — (Not Shown) — For use with Item 2B- Channel shaped, fabricated from min 20 MSG corrosion- protected or galv steel, min width to accommodate stud size, with min 1 in. long legs, attached to floor and ceiling with fasteners spaced max 24 in. OC.

1C. Framing Members* — Floor and Ceiling Runners — (Not Shown) — As an alternate to Item 1 - For use with Item 2C, channel shaped, min 2-1/2 in. wide fabricated from min 0.015 in. thick galv steel, attached to floor and ceiling with fasteners 24 in. OC. max. CLARKDIETRICH BUILDING SYSTEMS — CD ProTRAK
DMFCWBS L L C — ProTRAK
MBA METAL FRAMING — ProTRAK
RAM SALES L L C — Ram ProTRAK
STEEL STRUCTURAL PRODUCTS L L C — Tri-S ProTRAK

1D. Framing Members* — Floor and Ceiling Runners — (Not Shown) — As an alternate to Item 1 - For use with Item 2D, channel shaped, min 2-1/2 in. wide fabricated from min 0.018 in. thick galv steel, attached to floor and ceiling with fasteners 24 in. OC. max. TELLING INDUSTRIES L L C — TRUE-TRACK™

1E. Framing Members* — Floor and Ceiling Runners — (Not Shown) — As an alternate to Item 1 - For use with Item 2E, channel shaped, min 2-1/2 in. wide fabricated from min 25 MSG steel, attached to floor and ceiling with fasteners 24 in. OC. max.
KIRII (HONG KONG) LTD — Type KIRII

1F. Floor and Ceiling Runners — (Not Shown) — Channel shaped, min width to accommodate stud size, with min 1 in. long legs, for use with studs specified below, attached to floor and ceiling with fasteners spaced max 24 in. OC.
MARINO/WARE, DIV OF WARE INDUSTRIES INC — Viper20™ Track VT100
IMPERIAL MANUFACTURING GROUP INC — Viper20™ Track

1G. Framing Members* — Floor and Ceiling Runners — (Not Shown) — As an alternate to Item 1 - For use with Item 2G, channel shaped, min 2-1/2 in. deep, attached to floor and ceiling with fasteners 24 in. OC. max.
MARINO/WARE, DIV OF WARE INDUSTRIES INC — Viper20™ Track

1H. Framing Members* — Floor and Ceiling Runners — (Not Shown) — As an alternate to Item 1 - For use with Item 2J. Channel shaped, attached to floor and ceiling with fasteners 24 in. OC. max.
BAILEY METAL PRODUCTS LTD — Type PLATINUM PLUS

1I. Framing Members* — Floor and Ceiling Runners — (Not Shown) — As an alternate to Item 1 - For use with Item 2K, channel shaped, min 3-1/2 in. wide fabricated from min 0.018 in. thick galv steel, attached to floor and ceiling with fasteners 24 in. OC. max. RESCUE METAL FRAMING, L L C — AlphaTRAK

1J. Framing Members* — Floor and Ceiling Runners — (Not Shown) — As an alternate to Item 1 - For use with Item 2L. Channel shaped, attached to floor and ceiling with fasteners 24 in. OC. max.
OEG BUILDING MATERIALS — OEG Track

1K. Framing Members* — Floor and Ceiling Runners — (Not Shown) — As an alternate to Item 1 - For use with Item 2M, channel shaped, min 2-1/2 in. deep, formed of min. 25 MSG (0.018 in. min. bare metal thickness), attached to floor and ceiling with fasteners 24 in. OC. max.
CEMCO, LLC — Viper X Track

1L. Framing Members* — Floor and Ceiling Runners — (Not Shown) — As an alternate to Item 1 - For use with Item 2N. Channel shaped, min. 2-1/2 in. deep, attached to floor and ceiling with fasteners 24 in. OC. max.
ALLSTEEL & GYPSUM PRODUCTS INC — Type SUPREME D25
CONSOLIDATED FABRICATORS CORP, BUILDING PRODUCTS DIV — Type SUPREME D25
QUAIL RUN BUILDING MATERIALS INC — Type SUPREME D25
SCAFCO STEEL STUD MANUFACTURING CO — Type SUPREME D25 STEEL CONSTRUCTION SYSTEMS INC — Type SUPREME D25 TELLING INDUSTRIES L L C — Type SUPREME D25
UNITED METAL PRODUCTS INC — Type SUPREME D25

1M. Floor and Ceiling Runner — (Not shown) - As an alternate to Item 1, For use with Items 20 and 40 - Min 25 MSG galv steel, 1- 5/8 in. deep (min), attached to floor and ceiling with fasteners 24 in. OC. max.

1N. Framing Members* — Floor and Ceiling Runner — Not Shown — In lieu of Item 1 – For use with Item 2P, proprietary channel shaped runners, 1-1/4 in. wide by min. 2-1/2 in. deep fabricated from min 0.019 in. thick galv steel, attached to floor and ceiling with fasteners spaced 24 in. OC max.

PANEL REY S A – SUPRA Track 20EQ/19 mil

2. Steel Studs — Min 2-1/2 in. deep, formed of min 25 MSG galv steel max stud spacing 24 in. OC. Studs to be cut 3/4 in. less than assembly height.

2A. Framing Members* — Steel Studs — As an alternate to Item 2 — For use with Item 1G, channel shaped studs, min 2-1/2 in. deep, spaced a max of 24 in. OC. Studs to be cut 3/4 in. less than assembly height.
ALLSTEEL & GYPSUM PRODUCTS INC — Type SUPREME D24/30EQD and Type SUPREME D20
CEMCO, LLC — Viper20™
CONSOLIDATED FABRICATORS CORP, BUILDING PRODUCTS DIV — Type SUPREME D24/30EQD and Type SUPREME D20
MARINO/WARE, DIV OF WARE INDUSTRIES INC — Viper20™
IMPERIAL MANUFACTURING GROUP INC — Viper20™
QUAIL RUN BUILDING MATERIALS INC — Type SUPREME D24/30EQD and Type SUPREME D20
SCAFCO STEEL STUD MANUFACTURING CO — Type SUPREME D24/30EQD and Type SUPREME D20 STEEL CONSTRUCTION SYSTEMS INC — Type SUPREME D24/30EQD and Type SUPREME D20 TELLING INDUSTRIES L L C — Type SUPREME D24/30EQD and Type SUPREME D20
UNITED METAL PRODUCTS INC — Type SUPREME D24/30EQD and Type SUPREME D20

2B. Steel Studs — (As an alternate to Item 2, For use with Item 4D, 4H, and 4J) — Channel shaped, fabricated from min 20 MSG corrosion-protected or galv steel, 3-1/2 in. min depth, spaced a max of 16 in. OC. Studs friction-fit into floor and ceiling runners. Studs to be cut 5/8 to 3/4 in. less than assembly height.

2C. Framing Members* — Steel Studs — As an alternate to Item 2 — For use with Item 1C, channel shaped studs, min 2-1/2 in. wide fabricated from min 0.015 in. thick galv steel, spaced a max of 24 in. OC. Studs to be cut 3/4 in. less than assembly height.
CLARKDIETRICH BUILDING SYSTEMS — CD ProSTUD
DMFCWBS L L C — ProSTUD
MBA METAL FRAMING — ProSTUD
RAM SALES L L C — Ram ProSTUD
STEEL STRUCTURAL PRODUCTS L L C — Tri-S ProSTUD

2D. Framing Members* — Steel Studs — As an alternate to Item 2 — For use with Item 1D, channel shaped studs, min 2-1/2 in. wide fabricated from min 0.018 in. thick galv steel, spaced a max of 24 in. OC. Studs to be cut 3/4 in. less than assembly height.
TELLING INDUSTRIES L L C — TRUE-STUD™

2E. Framing Members* — Steel Studs — As an alternate to Item 2 — For use with Item 1E, channel shaped studs, min 2-1/2 in. wide fabricated from min 25 MSG steel, spaced a max of 24 in. OC. Studs to be cut 3/4 in. less than assembly height.
KIRII (HONG KONG) LTD — Type KIRII

2F. Framing Members* — Steel Studs — As an alternate to Item 2 — For use with Item 1G, channel shaped studs, min 2-1/2 in. deep, spaced a max of 24 in. OC. Studs to be cut 3/4 in. less than assembly height.
MARINO/WARE, DIV OF WARE INDUSTRIES INC — Viper20™

2G. Framing Members* — Steel Studs — As an alternate to Item 2 — For use with Item 1, channel shaped studs, Min 2-1/2 in. deep, formed of min 25 MSG galv steel max stud spacing 24 in. OC. Studs to be cut 3/4 in. less than assembly height.
EB METAL INC — NITROSTUD

2H. Framing Members* — Steel Studs — As an alternate to Item 2 — For use with Item 1, channel shaped studs, Min 2-1/2 in. deep, formed of min 25 MSG galv steel max stud spacing 24 in. OC. Studs to be cut 3/4 in. less than assembly height.
OLMAR SUPPLY INC — PRIMESTUD

2I. Framing Members* — Steel Studs — As an alternate to Item 2 — For use with Item 1A (3-5/8 in. wide track), channel shaped
studs, fabricated from min 25 MSG corrosion-protected steel, 1-1/4 in. wide by 3-5/8 in. deep, spaced a max of 24 in. OC. Studs to be cut 3/8 to 3/4 in. less than assembly height.
MARINO/WARE, DIV OF WARE INDUSTRIES INC — StudRite™

2J. Framing Members* — Steel Studs — As an alternate to Item 2 — For use with Item 1H, channel shaped, min 3-5/8 in. wide, spaced a max of 24 in. OC. Studs to be cut 3/8 to 3/4 in. less than assembly height.
BAILEY METAL PRODUCTS LTD — Type PLATINUM PLUS

2K. Framing Members* — Steel Studs — As an alternate to Item 2 — For use with Item 1I, channel shaped studs, min 3-1/2 in. wide fabricated from min 0.018 in. thick galv steel, spaced a max of 24 in. OC. Studs to be cut 3/4 in. less than assembly height.
RESCUE METAL FRAMING, L L C — AlphaSTUD

2L. Framing Members* — Steel Studs — As an alternate to Item 2 — For use with Item 1J, channel shaped studs, Min 2-1/2 in. deep, formed of min 25 MSG galv steel max stud spacing 24 in. OC. Studs to be cut 3/8 to 3/4 in. less than assembly height.
OEG BUILDING MATERIALS — OEG Stud

2M. Framing Members* — Steel Studs — As an alternate to Item 2 — For use with Item 1K, channel shaped studs, min 2-1/2 in. deep, formed of min. 25 MSG (0.018 in. min. bare metal thickness), spaced a max of 24 in. OC. Studs to be cut 3/4 in. less than assembly height.
CEMCO, LLC — Viper X

2N. Framing Members* — Steel Studs — As an alternate to Item 2 — For use with Item 1L, channel shaped studs, min depth 2-1/2 in. deep, spaced a max of 24 in. OC. Studs to be cut 3/4 in. less than assembly height.
ALLSTEEL & GYPSUM PRODUCTS INC — Type SUPREME D25
CONSOLIDATED FABRICATORS CORP, BUILDING PRODUCTS DIV — Type SUPREME D25
QUAIL RUN BUILDING MATERIALS INC — Type SUPREME D25
SCAFCO STEEL STUD MANUFACTURING CO — Type SUPREME D25 STEEL CONSTRUCTION SYSTEMS INC — Type SUPREME D25
TELLING INDUSTRIES L L C — Type SUPREME D25
UNITED METAL PRODUCTS INC — Type SUPREME D25

2O. Framing Members — Steel Studs — (As an alternate to Item 2) For use with Items 1M and 4O — channel shaped studs min 1-5/8 in. deep, formed of 25 MSG galv steel, max stud spacing 24 in. OC. Studs cut 3/8 in. to 3/4 in. less than assembly height.

2P. Framing Members* — Steel Studs — Not Shown — In lieu of Item 2 – For use with Item 1N, proprietary channel shaped steel studs, min 1- 1/4 in. wide by min 2-1/2 in. deep with 1/4 in. return lips fabricated from min 0.019 in. thick galv steel, spaced 24 in. OC max. Studs cut 3/4 in. less in length than assembly height.
PANEL REY S A – SUPRA Stud 20EQ/19 mil

3. Batts and Blankets* — (Optional) — Mineral wool or glass fiber batts partially or completely filling stud cavity.
See Batts and Blankets (BZJZ) category for names of manufacturers
ROCKWOOL — Type AFB, min. density 1.69 pcf / 27.0 kg/m3

ROCKWOOL MALAYSIA SDN BHD — Type Acoustical Fire Batts

3A. Fiber, Sprayed* — As an alternate to Batts and Blankets (Item 3) — (100% Borate Formulation) — Spray applied cellulose material.

The fiber is applied with water to completely fill the enclosed cavity in accordance with the application instructions supplied with the product with a nominal dry density of 2.7 lb/ft3. Alternate Application Method: The fiber is applied without water or adhesive at a
nominal dry density of 3.5 lb/ft3, in accordance with the application instructions supplied with the product.
Applegate Greenfiber Acquisition LLC — Insulmax and SANCTUARY for use with wet or dry application.

3B. Fiber, Sprayed* — As an alternate to Batts and Blankets (Item 3) — Spray applied cellulose insulation material. The fiber is applied with water to interior surfaces in accordance with the application instructions supplied with the product. Applied to completely fill the enclosed cavity. Minimum dry density of 4.3 pounds per cubic ft.
NU-WOOL CO INC — Cellulose Insulation

3C. Fiber, Sprayed* — As an alternate to Batts and Blankets (Item 3) — Spray applied cellulose fiber. The fiber is applied with water to completely fill the enclosed cavity in accordance with the application instructions supplied with the product. The minimum dry density shall be 4.30 lbs/ft3.
INTERNATIONAL CELLULOSE CORP — Celbar-RL

3D. Fiber, Sprayed* — As an alternate to Batts and Blankets (Item 3) — Spray-applied cellulose material. The fiber is applied with water to completely fill the enclosed cavity in accordance with the application instructions supplied with the product. To facilitate the installation of the material, any thin, woven or non-woven netting may be attached by any means possible to the outer face the studs. The material shall reach
equilibrium moisture content before the installation of materials on either face of the studs. The minimum dry density shall be 5.79 lbs/ft3.
Applegate Greenfiber Acquisition LLC— Applegate Advanced Stabilized Cellulose Insulation

3E. Foamed Plastic* — As an alternate to Batts and Blankets (Items 3-3D), for use with Item 4Q — Spray applied, foamed plastic insulation, at any thickness from partial fill to completely filling stud cavity. When foamed plastic is used, minimum stud depth shall be 3-1/2 in. with minimum 20
MSG steel thickness.
CARLISLE SPRAY FOAM INSULATION — Types SealTite ONE, SealTite Pro Closed Cell (CC), SealTite Pro Open Cell (OC), SealTite Pro OCX, SealTite Pro No Trim 21, SealTite Pro One Zero, Foamsulate Closed Cell, Foamsulate OCX, Foamsulate 70, and Foamsulate HFO.

3F. Foamed Plastic* — As an alternate to Batts and Blankets (Items 3-3E), for use with Item 4Q — Spray applied, foamed plastic insulation, at any thickness from partial fill to completely filling stud cavity. When foamed plastic is used, minimum stud depth shall be 3-1/2 in. with min. 20 MSG
thickness.
BASF CORP- Enertite® NM, Enertite® G, FE178®, Spraytite® 178, Spraytite® 81206, Walltite® 200, Walltite® US, Walltite® US-N, Walltite® HP+, FE137®, FE158®, Spraytite® 158, Spraytite® SP, Spraytite® 81205, Spraytite® Comfort XL, Walltite® XL, Walltite® MAX

4. Gypsum Board* — 5/8 in. thick, outer layer paper, glass mat or vinyl surfaced. (Laminated System) Gypsum board applied vertically in two layers. Inner layer attached to studs with 1 in. long Type S steel screws spaced 8 in. OC along vertical edges, and 12 in. OC in the field and outer layer laminated to inner layer with joint compound, applied with a notched spreader producing continuous beads of compound about 3/8 in. in diameter, spaced not greater than 2 in. OC. Joints of laminated outer layer offset 12 in. from inner layer joints Outer layer gypsum board attached to floor and ceiling runner track with 1-5/8 in. long Type S steel screws spaced 12 in. OC.
Optional, (Direct Attached System), Inner layer attached to studs with 1 in. long Type S steel screws spaced 16 in. OC in the field and along the
vertical edges. Outer layer attached to the studs over the inner layer with 1-5/8 in. long Type S steel screws spaced 16 in. OC in the field and along the vertical edges and 12 in. OC to the floor and ceiling runners. Joints of screw-attached outer layer offset from inner layer joints. Joints of outer layer may be taped or untaped.

Nom 3/32 in. thick gypsum veneer plaster may be applied to the entire surface of Classified veneer baseboard. Joints reinforced.
AMERICAN GYPSUM CO — Types AG-C, AGX-1, M-Glass, AGX-11, LightRoc
BEIJING NEW BUILDING MATERIALS PUBLIC LTD CO — Type DBX-1
CABOT MANUFACTURING ULC — Type X, 5/8 Type X, Type Blueglass Exterior Sheathing
CERTAINTEED GYPSUM INC — Types EGRG, GlasRoc, GlasRoc-2, Type X-1, Type C, or 5/8" Easi-Lite Type X, Type LWTX
CGC INC — Type AR, C, IP-AR, IP-X1, IP-X2, IPC-AR, SCX, SHX, ULIX, USGX, WRC or WRX
CERTAINTEED GYPSUM INC — Types LGFC2A, LGFC6A, LGFC-C/A, LGFC-WD, LGLLX, CLLX
GEORGIA-PACIFIC GYPSUM L L C — Types 5, 6, 9, C, DAP, DD, DA, DAPC, DGG, DS, GPFS6, LS, TG-C, Type X, Veneer Plaster Base-Type X, Water
Rated-Type X, Sheathing Type-X, Soffit-Type X, GreenGlass Type X, Type X ComfortGuard Sound Deadening Gypsum Board, Type LWX, Veneer Plaster Base-Type LWX, Water Rated-Type LWX, Sheathing Type-LWX, Soffit-Type LWX, Type DGLW, Water Rated-Type DGLW, Sheathing Type- DGLW, Soffit-Type DGLW, Type LW2X, Veneer Plaster Base - Type LW2X, Water Rated - Type LW2X, Sheathing - Type LW2X, Soffit - Type LW2X, Type DGL2W, Water Rated - Type DGL2W, Sheathing - Type DGL2W
NATIONAL GYPSUM CO — Types eXP-C, FSK, FSK-C, FSW, FSW-3, FSW-5, FSW-6, FSW-8, FSW-C, FSW-G, FSMR-C, FSL, Type SBWB, RSX.
NATIONAL GYPSUM CO — Riyadh, Saudi Arabia — Type FR, or WR.
PABCO BUILDING PRODUCTS L L C, DBA PABCO GYPSUM — Type C, PG-3, PG-5, PG-9, PG-11, PG-C, PGS-WRS, PGI
PANEL REY S A — Types GREX, GRIX, PRX, RHX, MDX, ETX, PRC, PRC2, PRX2
SIAM GYPSUM INDUSTRY (SARABURI) CO LTD — Type EX-1
SAINT-GOBAIN GYPROC MIDDLE EAST FZE — Type Gyproc FireStop, Gyproc FireStop MR, Gyproc FireStop M2TECH, Gyproc FireStop ACTIV'Air, Gyproc FireStop MR ACTIV'Air, Gyproc FireStop M2TECH ACTIV'Air, Gyproc DuraLine, Gyproc DuraLine MR, Gyproc DuraLine M2TECH, Gyproc
DuraLine ACTIV'Air, Gyproc DuraLine MR ACTIV'Air, Gyproc DuraLine M2TECH ACTIV'Air
THAI GYPSUM PRODUCTS PCL — Type C, M2Tech Type C andType X
THE SIAM GYPSUM INDUSTRY (SONGKHLA) CO — Types C and SCX
UNITED STATES GYPSUM CO — Type AR, C, FRX-G, IP-AR, IP-X1, IP-X2, IPC-AR, SCX, SGX, SHX, ULIX, USGX, WRC, WRX
USG BORAL DRYWALL SFZ LLC — Types C, SCX, SGX, USGX
USG MEXICO S A DE C V — Type AR, C, IP-AR, IP-X1, IP-X2, IPC-AR, SCX, SHX, USGX, WRC or WRX

4A. Gypsum Board* — (As an alternate to Item 4) — Nom 3/4 in. thick, installed as described in Item 4 with 1-1/4 in. long Type S screws for inner layer and 2-1/4 in. long Type S screws for outer layer.
CGC INC — Types AR, IP-AR
UNITED STATES GYPSUM CO — Types AR, IP-AR
USG MEXICO S A DE C V — Types AR, IP-AR

4B. Gypsum Board* — (As an alternate to Items 4 and 4A) — 5/8 in. thick, 24 to 54 in. wide, applied horizontally as the outer layer to one side of the assembly. Horizontal joints need not be backed by steel framing. Secured as described in Item 4 for the direct attached system. When used in widths other than 48 in., gypsum panels to be installed horizontally.
CERTAINTEED GYPSUM INC — Type C, Type GlasRoc
CGC INC — Type SHX
SAINT-GOBAIN GYPROC MIDDLE EAST FZE — Type Gyproc FireStop, Gyproc FireStop MR, Gyproc FireStop M2TECH, Gyproc FireStop ACTIV'Air, Gyproc FireStop MR ACTIV'Air, Gyproc FireStop M2TECH ACTIV'Air, Gyproc DuraLine, Gyproc DuraLine MR, Gyproc DuraLine M2TECH, Gyproc
DuraLine ACTIV'Air, Gyproc DuraLine MR ACTIV'Air, Gyproc DuraLine M2TECH ACTIV'Air
THAI GYPSUM PRODUCTS PCL — Type X, and Type C, M2Tech Type C
UNITED STATES GYPSUM CO — Type SHX, FRX-G

4C. Gypsum Board* — (As an alternate to Items 4, 4A and 4B) — Two layers of 5/8 in. thick gypsum board applied horizontally or
vertically. Inner layer attached to studs with No. 6 by 1 in. long Type S bugle head screws spaced 24 in. OC along the top and bottom tracks starting 2 in. and then 12 in. from the vertical edge. Inner layer screws spaced 24 in. OC along the studs, starting 2 in. and then 12 in. from the top and bottom of the studs and starting 1-1/4 in. from the horizontal joints when installed horizontally. Outer layer attached to studs with 1-5/8 in. long Type S bugle head screws spaced 16 in. OC along the top and bottom tracks starting 1-3/4 in. from the vertical edge. Outer layer screws spaced 16 in. OC along the studs, starting 1-3/4 in. and then 8 in. from the top and bottom of the studs and starting 1-1/4 in. and then 8 in. from the horizontal joints when installed horizontally. Vertical joints centered over
studs and staggered one stud cavity on opposite sides of studs. Vertical joints in adjacent layers staggered one stud cavity. Horizontal joints need not be backed by steel framing. Horizontal edge joints and horizontal butt joints on opposite sides of studs need not be
staggered. Horizontal edge joints and horizontal butt joints in adjacent layers staggered a min of 12 in. When outer layers are installed
horizontally, vinyl or casein, dry or premixed joint compound shall be applied in two coats to joints and screw heads of outer layer.
Paper tape, nom 2 in. wide, embedded in first layer of compound over all joints of outer layer panels. Nom 3/32 in. thick gypsum veneer plaster may be applied to the entire surface of Classified veneer baseboard. Joints reinforced.
GEORGIA-PACIFIC GYPSUM L L C — Types 5, 6, 9, C, DAP, DD, DA, DAPC, DGG, DS, GPFS6, LS, TG-C, Type X, Veneer Plaster Base-Type X, Water
Rated-Type X, Sheathing Type-X, Soffit-Type X, GreenGlass Type X, Type X ComfortGuard Sound Deadening Gypsum Board, Type LWX, Veneer Plaster Base-Type LWX, Water Rated-Type LWX, Sheathing Type-LWX, Soffit-Type LWX, Type DGLW, Water Rated-Type DGLW, Sheathing Type- DGLW, Soffit-Type DGLW, Type LW2X, Veneer Plaster Base - Type LW2X, Water Rated - Type LW2X, Sheathing - Type LW2X, Soffit - Type LW2X, Type DGL2W, Water Rated - Type DGL2W, Sheathing - Type DGL2W

4D. Gypsum Board* — (Not Shown) — (As an alternate to Item 4 when used as the base layer on one or both sides of wall. For direct attachment only to steel studs Item 2B) — Nom 5/8 in. thick lead backed gypsum panels with beveled, square or tapered edges, applied vertically. Vertical joints centered over studs and staggered min 1 stud cavity on opposite sides of studs. Gypsum board
secured to studs with 1-1/4 in. long Type S-12 steel screws spaced 8 in. OC at perimeter and 12 in. OC in the field.
RAY-BAR ENGINEERING CORP — Type RB-LBG

4E. Gypsum Board* — (As an alternate to Items 4 through 4D) — Nominal 5/8 in. thick, 4 ft wide panels, applied vertically and secured as described in Item 4.
PABCO BUILDING PRODUCTS L L C, DBA PABCO GYPSUM — Types QuietRock ES

4F. Gypsum Board* — (As an alternate to Items 4 through 4E) —5/8 in. thick, applied vertically or horizontally as the outer layer to one side of the assembly. Horizontal joints need not be backed by steel framing. Secured as described in Item 4 for the direct attached system. When used in widths other than 48 in., gypsum panels to be installed horizontally.
CERTAINTEED GYPSUM INC — Type SilentFX

4G. Gypsum Board* — As an alternate to Item 4 — Nom. 5/8 in. thick, inner layer attached vertically to studs with 1 in. long Type S steel screws spaced 16 in. OC in the field and along the vertical edges. Outer layer attached to the studs horizontally over the inner layer with 1-5/8 in. long Type S steel screws spaced 16 in. OC in the field and along the vertical edges and 12 in. OC to the floor and
ceiling runners. Joints of outer layer must be taped. Nom 3/32 in. thick gypsum veneer plaster may be applied to the entire surface of Classified veneer baseboard.
CABOT MANUFACTURING ULC — Type Blueglass Exterior Sheathing
PABCO BUILDING PRODUCTS L L C, DBA PABCO GYPSUM — Types C, PG-11, PGS-WRS

4H. Gypsum Board* — (Not Shown) — (As an alternate to Items 4. For direct attachment only to steel studs Item 2B) — For Direct Application to Studs Only- For use as the base layer on one or both sides of the wall. Nom 5/8 in. thick lead backed gypsum panels with beveled, square or tapered edges, applied vertically. Vertical joints centered over studs and staggered min 1 stud cavity on

opposite sides of studs. Wallboard secured to studs with 1-5/8 in. long Type S 12 steel screws spaced 8 in. OC at perimeter and 12 in OC in the field. Lead batten strips required behind vertical joints of lead backed gypsum wallboard and optional at remaining stud locations. Fasteners for face layer gypsum panels when installed over lead backed board to be min 2-1/2 in. Type S-12 bugle head
steel screws spaced as described in Item 4. To be used with Lead Batten Strips (see Item 5A) or Lead Discs (see Item 6A).
MAYCO INDUSTRIES INC — Type X-Ray Shielded Gypsum

4I. Gypsum Board* — (As an alternate to Item 4, not for use with Items 1C and 2C or 1L and 2N) — Nom. 5/8 in. thick gypsum panels with beveled, square or tapered edges installed as described in Item 4.
CGC INC — Type ULX
UNITED STATES GYPSUM CO — Type ULX
USG MEXICO S A DE C V — Type ULX

4J. Gypsum Board* — (As an alternate to Item 4 when used as the base layer on one or both sides of wall. For direct attachment only to steel studs Item 2B) — Nom 5/8 in. thick lead backed gypsum panels with beveled, square or tapered edges, applied vertically.
Vertical joints centered over studs and staggered min 1 stud cavity on opposite sides of studs. Wallboard secured to studs with 1-1/4 in. long Type S-12 steel screws gypsum panel steel screws spaced 8 in. OC at perimeter and 12 in. OC in the field. Lead batten strips required behind vertical joints of lead backed gypsum wallboard and optional at remaining stud locations. Lead batten strips, min 2 in. wide, max 8 ft long with a max thickness of 0.14 in. placed on the face of studs and attached to the stud with construction adhesive and two 1 in. long Type S-12 pan head steel screws, one at the top of the strip and one at the bottom of the strip. Lead discs, nominal 3/8 in. diam by max 0.085 in. thick. Compression fitted or adhered over the screw heads. Lead batten strips and discs to have a purity of 99.9% meeting the Federal specification QQ-L-201f, Grade "C".
RADIATION PROTECTION PRODUCTS INC — Type RPP - Lead Lined Drywall

4K. Gypsum Board — (As an alternate to Items 4 through 4J, not for use with Items 1C and 2C.) — Two layers of nominal 15 mm thick gypsum board applied vertically. Inner layer attached to studs with No. 3.5 x 1-3/8 in. long bugle head, self-drilling screws spaced 23- 5/8 in. OC in the field and 15-3/4 in. OC in the perimeter, with the first screw 2 in. from the edge. Outer layer attached to the studs over the inner layer with No. 3.5 x 1-3/4 in. long bugle head, self-drilling screws spaced 11-13/16 in. OC in the field and 7-7/8 in. OC in the perimeter, with the first screw 3/4 in. from the edge. Outer layer screws staggered from inner layer screws. Vertical joints centered over studs and staggered one stud cavity on opposite sides of studs. Vertical joints in adjacent layer staggered one stud cavity. Self- adhesive fiberglass mesh (9x9 mesh) tape, nom 2 in. wide, applied over all joints of outer layer panels. Dry or premixed joint compound applied in two coats to joints over the mesh tape and screw heads of outer layer.
GYPSEMNA CO LLC — Types MRFW, FW, TF

4L. Gypsum Board* — (As an alternate to Items 4 through 4K) — Two layers of 5/8 in. thick gypsum board applied vertically or
horizontally. Inner layer attached to studs with #6 x 1 in. long bugle head screws spaced 12 in. OC along the top and bottom tracks and 16 in. OC in the field and along the vertical edges. Outer layer attached to studs with #6 x 1-5/8 in. long bugle head screws
spaced 12 in. OC along the top and bottom tracks and 16 in. OC in the field and along the vertical edges. Vertical joints are centered
over studs and staggered between layers and on opposite sides of the wall. Horizontal joints on the face layer are staggered 12 in. from the base layer. Horizontal joints need not to be backed by steel framing.
CERTAINTEED GYPSUM INC — Types LGFC2A, LGFC6A, LGFC-C/A, LGFC-WD

4M. Wall and Partition Facings and Accessories* — (As an alternate to Items 4 through 4L) — Nominal 5/8 in. thick, 4 ft wide panels, applied vertically and secured as described in Item 4.
PABCO BUILDING PRODUCTS L L C, DBA PABCO GYPSUM — Type QuietRock 527.

4N. Gypsum Board* — (As an alternate to Item 4 through 4M) — For direct application to studs only - Four layers nom. 5/16 in. thick gypsum panels applied vertically or horizontally. When applied horizontally, base layer secured to studs with 1 in. Type S screws spaced 24 in. OC. Second layer installed with joints offset 12 in. from base layer and secured with 1 in. Type S screws spaced 24 in. OC. Third layer installed with joints in line with base layer and secured with 1-1/2 in. Type S screws spaced 16 in. OC. Fourth layer installed with joints in line with second layer and secured with 1-5/8 in. Type S screws spaced 12 in. OC. For all layers, screws offset 4 in. from
previous layer. When applied vertically, base layer secured with 1 in. Type S screws spaced 24 in. OC. Second layer secured with joints offset one stud cavity and secured with 1 in. Type S screws spaced 24 in. OC. Third layer installed with joints in line with base layer and secured with 1-1/2 in. Type S screws spaced 12 in. OC. Fourth layer secured with joints in line with second layer and secured with 1-5/8 in. Type S screws spaced 8 in. OC along vertical edges and 12 in. OC in the field. For all layers, screws offset 4 in. from previous layer.
NATIONAL GYPSUM CO — Type FSW

4O. Gypsum Board* — (As an alternate to Items 4 through 4N) — Two layers of 5/8 in. thick gypsum board applied vertically or horizontally. Inner layer attached to studs with 1 in. long Type S screws spaced 16 in. OC in the field and vertical edges and along top and bottom tracks. Outer layer attached to studs with 1-5/8 in. long Type S screws spaced 16 in. OC in the field and vertical edges and along the top and bottom tracks. Vertical joints are centered over studs and staggered between layers and on opposite sides of studs. Horizontal edge joints and horizontal butt joints on opposite sides of studs need not be staggered or backed by steel framing.
Horizontal edge joints and horizontal butt joints in adjacent layers need not be staggered.
NATIONAL GYPSUM CO — Type FSLX

4P. Wall and Partition Facings and Accessories* — (As an alternate to Item 4) — Nominal 1-3/8 in. thick, 4 ft wide panels, applied vertically or horizontally. Fastened with #6 x 2 in. long drywall screws spaced 8 in. OC along the perimeter and 12 in. OC in the field.
PABCO BUILDING PRODUCTS L L C, DBA PABCO GYPSUM — Type QuietRock 545

4Q. Gypsum Board*— (As an alternate to Item 5 when Foam Plastic insulation (Item 3E or 3F) is used) — Any 5/8 in. thick, 4 ft. wide, Gypsum Board listed in Item 5 above. Applied vertically with vertical joints centered over studs and staggered one stud cavity on opposite sides of studs. Gypsum panels secured to studs with 1-1/4 in. long Type S steel screws spaced 8 in. OC at perimeter and in the field. For 2 layer assemblies outer layer will be attached to studs over inner layer with the 1-7/8 in. long steel screws spaced 8 in. OC.

5. Lead Batten Strips — (Not Shown, For Use With Item 4D) — Lead batten strips, min 1-1/2 in. wide, max 10 ft long with a max thickness of 0.125 in. Strips placed on the interior face of studs and attached from the exterior face of the stud with two 1 in. long Type S-12 pan head steel screws, one at the top of the strip and one at the bottom of the strip. Lead batten strips to have a purity of 99.9% meeting the Federal specification QQ-L-201f, Grade "C". Lead batten strips required behind vertical joints of lead backed gypsum
board (Item 4D) and optional at remaining stud locations. Required behind vertical joints.

5A. Lead Batten Strips — (Not Shown, for use with Item 4H) — Lead batten strips, 2 in. wide, max 10 ft long with a max thickness of0.140 in. Strips placed on the face of studs and attached to the stud with two min. 1 in. long min. Type S-8 pan head steel screws, one at the top of the strip and one at the bottom of the strip or with one min. 1 in. long min. Type S-8 pan head steel screw at the top of the strip. Lead batten strips to have a purity of 99.5% meeting the Federal specification QQ-L-201f, Grades "B, C or D". Lead batten strips required behind vertical joints of lead backed gypsum wallboard (Item 6) and optional at remaining stud locations.

6. Lead Discs or Tabs — (Not Shown, For Use With Item 4D) — Used in lieu of or in addition to the lead batten strips (Item 5) or optional at other locations - Max 3/4 in. diam by max 0.125 in. thick lead discs compression fitted or adhered over steel screw heads or max 1/2 in. by 1-1/4 in. by max 0.125 in. thick lead tabs placed on gypsum boards (Item 4D) underneath screw locations prior to the installation of the screws. Lead discs or tabs to have a purity of 99.9% meeting the Federal specification QQ-L-201f, Grade "C".

6A. Lead Discs — (Not Shown, for use with Item 4H) — Max 5/16 in. diam by max0.140 in. thick lead discs compression fitted or adhered over steel screw heads. Lead discs to have a purity of 99.5% meeting the Federal Specification QQ-L-201f, Grades "B, C or D".

7. Mineral and Fiber Board* — (Optional, Not Shown) — For optional use as an additional layer on one side of wall. Nom 1/2 in. thick, 4 ft wide with long dimension parallel and centered over studs. Attached to studs and floor and ceiling runners with 1-5/8 in.
long Type S steel screws, spaced 12 in. OC. The required UL Classified gypsum board layer(s) is/are to be installed as indicated as to fastener type and spacing, except that the required fastener length shall be increased by a minimum of 1/2 in. Not evaluated or intended as a substitute for the required layer(s) of UL Classified Gypsum Board.
HOMASOTE CO — Homasote Type 440-32

7A. Mineral and Fiber Board — (Optional, Not Shown) — For optional use as an additional layer on one side of wall - Nom 1/2 in. thick, 4 ft wide, square edge fiber boards applied vertically to studs on one side of the wall in between the wood studs and the UL Classified Gypsum Board (Item 4). Fiber boards installed with 1-1/4 in. long, Type S steel screws spaced 12 in. OC max, with the last
screws spaced 2 in. and 6 in. from edge of board. Gypsum board (Item 4) installed as indicated as to fastener type and spacing, except that the required fastener length shall be increased by a minimum of 1/2 in. Not evaluated or intended as a substitute for the required layer(s) of UL Classified Gypsum Board.
BLUE RIDGE FIBERBOARD INC — SoundStop

8. Furring Channels — (Optional, Not Shown — not for use with Items 4D, 4H, 4J, or 4N) — Resilient furring channels fabricated from min 25 MSG corrosion-protected steel, spaced vertically a max of 24 in. OC. Flange portion attached to each intersecting stud with 1/2 in. long Type S-12 steel screws.

8A. Framing Members* — (Optional on one or both sides, Not Shown — not for use with Items 4D, 4H, 4J, or 4N) — As an alternate to Item 8, furring channels and Steel Framing Members as described below:
Furring Channels — Formed of No. 25 MSG galv steel. 2-9/16 in. or 2-23/32 in. wide by 7/8 in. deep, spaced max. 24 in. OC perpendicular to studs. Channels secured to studs as described in Item b.

b. Steel Framing Members* — Used to attach furring channels (Item 8Aa) to studs. Clips spaced max. 48 in. OC. RSIC-1 and RSIC-1 (2.75) clips secured to studs with No. 8 x 1-1/2 in. minimum self-drilling, S-12 steel screw through the center grommet. RSIC-V and RSIC-V (2.75) clips secured to studs with No. 8 x 9/16 in. minimum self-drilling, S-12 steel screw through the center hole. Furring channels are friction fitted into clips. RSIC-1 and RSIC-V clips for use with 2-9/16 in. wide furring channels. RSIC-1 (2.75) and RSIC-V (2.75) clips for use with 2-23/32 in. wide furring channels.
PAC INTERNATIONAL L L C — Types RSIC-1, RSIC-V, RSIC-1 (2.75), RSIC-V (2.75)

8B. Framing Members* — (Optional on one or both sides, Not Shown — Not for use with Items 4D, 4H, 4J, or 4N) — As an alternate to Item 8, furring channels and Steel Framing Members as described below:
Furring Channels — Formed of No. 25 MSG galv steel. Spaced 24 in. OC perpendicular to studs. Channels secured to studs as described in Item b. Ends of adjoining channels overlapped 6 in. and tied together with double strand of No. 18 AWG galvanized steel wire.Gypsum board attached to furring channels as described in Item 4.

b. Steel Framing Members* — Used to attach furring channels (Item a) to studs. Clips spaced 48 in. OC., and secured to studs with 2 in. coarse drywall screw with 1 in. diam washer through the center hole. Furring channels are friction fitted into clips.
STUDCO BUILDING SYSTEMS — RESILMOUNT Sound Isolation Clips - Type A237R

8C. Steel Framing Members* — (Optional on one or both sides, Not Shown — Not for use with Items 4D, 4H, 4J, or 4N) — As an alternate to Item 8, furring channels and Steel Framing Members as described below:
Furring Channels — Formed of No. 25 MSG galv steel. Spaced 24 in. OC perpendicular to studs. Channels secured to studs as described in Item 8Cb. Ends of adjoining channels overlapped 6 in. and tied together with double strand of No. 18 AWG galvanized steel wire. Gypsum board attached to furring channels as described in Item 4.

b. Steel Framing Members* — Used to attach furring channels (Item 8Ca) to studs. Clips spaced 48 in. OC, and secured to studs with No. 8 x 2-1/2 in. coarse drywall screw through the center hole. Furring channels are friction fitted into clips.
REGUPOL AMERICA — Type SonusClip

8D. Steel Framing Members* — (Optional on one or both sides, Not Shown — Not for use with Items 4D, 4H, 4J, or 4N) — As an alternate to Item 8, furring channels and Steel Framing Members as described below:
Resilient Channels — Formed of No. 25 MSG galv steel, spaced 24 in. OC, and perpendicular to studs. Channels secured to studs as described in Item b. Ends of adjoining channels overlapped 6 in. and secured in place with two No. 8 15 x 1/2 in. Philips Modified Truss screws spaced 2-1/2 in. from the center of the overlap. Gypsum board attached to resilient channels as described in Item 4.

b. Steel Framing Members* — Used to attach resilient channels (Item 8Da) to studs. Clips spaced 48 in. OC., and secured to studs with No. 8 x 2-1/2 in. coarse drywall screw through the center hole. Resilient channels are secured to clips with one No. 10 x 1/2 in. pan-head self-drilling screw.
KEENE BUILDING PRODUCTS CO INC — Type RC+ Assurance Clip

8E. Steel Framing Members* — (Optional on one or both sides, Not Shown — Not for use with Items 4D, 4H, 4J, or 4N) — As an alternate to Item 8, furring channels and Steel Framing Members as described below:
Furring Channels — Formed of No. 25 MSG galv steel. Spaced 24 in. OC perpendicular to studs. Channels secured to studs as described in Item b. Ends of adjoining channels overlapped 6 in. and tied together with double strand of No. 18 AWG galvanized steel wire. Gypsum board attached to furring channels as described in Item 4.

b. Steel Framing Members* — Used to attach furring channels (Item 8Ea) to studs. Clips spaced 48 in. OC., and secured to studs with No. 10 x 2 in. screw through the center hole. Furring channels are friction fit into clips.
MASON INDUSTRIES INC — Type CWC-50

8F Steel Framing Members* — (Optional on one or both sides, Not Shown — Not for use with Items 4D, 4H, 4J, or 4N) — As an alternate to Item 8, furring channels and Steel Framing Members as described below:
a Furring Channels — Formed of No. 25 MSG galv steel. 2-23/32 in. wide by 7/8 in. deep, spaced 24 in. OC perpendicular to studs.
Channels secured to studs as described in Item b. Ends of adjoining channels are overlapped 6 in. and tied together with double
strand of No. 18 SWG galv steel wire near each end of overlap. As an alternate, ends of adjoining channels may be overlapped 6 in. and secured together with two self-tapping #6 framing screws, min. 7/16 in. long at the midpoint of the overlap, with one screw on each flange of the channel. Gypsum board attached to furring channels as described in Item 4.

b Steel Framing Members* — Used to attach furring channels (Item 8Fa) to studs. Clips spaced maximum 48 in. OC. Clips secured to studs with No. 8 x 2-1/2 in. coarse drywall screw through the center grommet. Furring channels are friction fitted into clips.

CLARKDIETRICH BUILDING SYSTEMS — Type ClarkDietrich Sound Clip

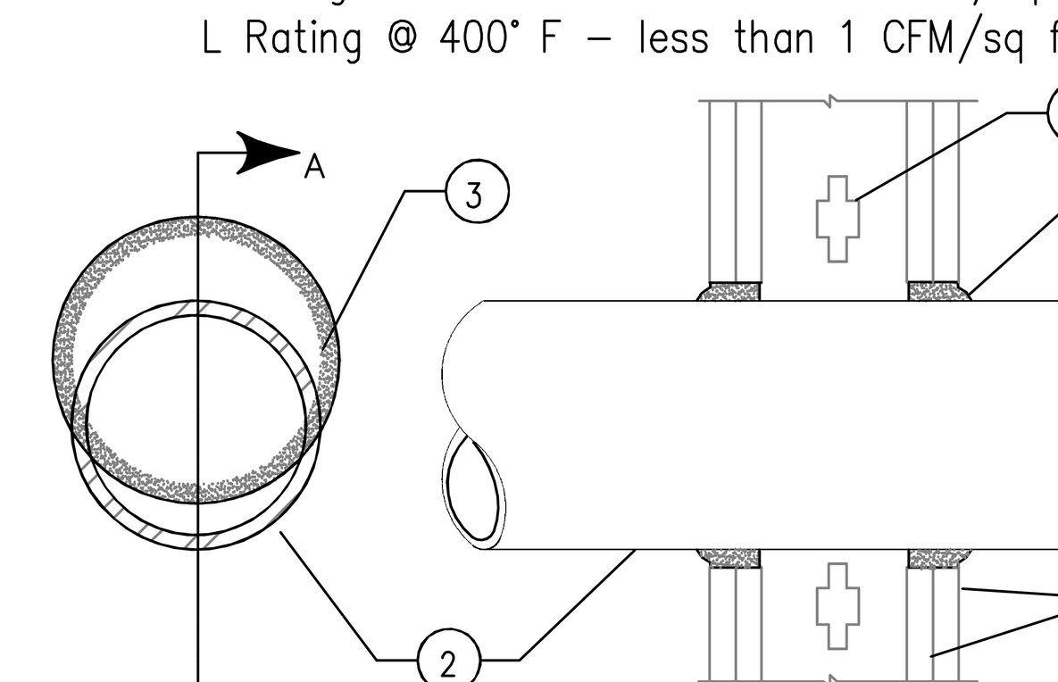
9. Barrier Mesh — (Optional, Not Shown) - Attached to steel studs on one or both sides of the wall using Barrier Mesh Clips spaced at maximum 12 inches on center vertically, using a flat head type screw penetrating through the steel at least 3/8 of an inch. For Steel
Studs less than 0.033 inches in thickness, use self-piercing screws. For Steel Studs equal to or greater than 0.033 inches in thickness, use steel drill screws (self-tapping). Gypsum Board (Item 4) to be installed directly over the Barrier Mesh using prescribed screw
patterns with lengths increased by a minimum 1/8 in. Barrier Mesh may be installed with the long dimension of the diamond pattern positioned vertically or horizontally. Barrier Mesh joints may occur as butt joints at the framing members and secured using the Barrier Mesh Clips or occur in between framing members as overlapping joints secured using 18 SWG wire ties spaced a maximum 12 in. on center.
CLARKDIETRICH BUILDING SYSTEMS — Barrier Mesh, Barrier Mesh Clips

* Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.

SYSTEM NO. W-L-1001

UPDATED JUNE 15, 2005

F Ratings — 1, 2, 3 and 4 Hr (See Items 2 and 3)
T Ratings — 0, 1, 2, 3, and 4 Hr (See Item 3)
L Rating @ Ambient — less than 1 CFM/sq ft
L Rating @ 400° F — less than 1 CFM/sq ft



SECTION A-A

PENETRATION DETAIL

1
A10

1. Wall Assembly — The 1, 2, 3 or 4 hr fire-rated gypsum wallboard/stud wall assembly shall be constructed of the materials and in the manner described in the individual U300 or U400 Series Wall or Partition Designs in the UL Fire Resistance Directory and shall include the following construction features:

A. Studs — Wall framing may consist of either wood studs (max 2 hr fire rated assemblies) or steel channel studs. Wood studs to consist of nom 2 by 4 in. (51 by 102 mm) lumber spaced 16 in. (406 mm) OC with nom 2 by 4 in. (51 by 102 mm) lumber end plates and cross braces. Steel studs to be min 3-5/8 in. (92 mm) wide by 1-3/8 in. (35 mm) deep channels spaced max 24 in. (610 mm) OC.

B. Gypsum Board* — Nom 1/2 or 5/8 in. (13 or 16 mm) thick, 4 ft. (122 cm) wide with square or tapered edges. The gypsum wallboard type, thickness, number of layers, fastener type and sheet orientation shall be as specified in the individual U300 or U400 Series Design in the UL Fire Resistance Directory. Max diam of opening is 26 in. (660 mm).

2. Through Penetrant — One metallic pipe, conduit or tubing installed either concentrically or eccentrically within the firestop system. The annular space between pipe, conduit or tubing and periphery of opening shall be min of 0 in. (0 mm) (point contact) to max 2 in. (51 mm). Pipe, conduit or tubing to be rigidly supported on both sides of wall assembly. The following types and sizes of metallic pipes, conduits or tubing may be used:

A. Steel Pipe — Nom 24 in. (610 mm) diam (or smaller) Schedule 10 (or heavier) steel pipe.
B. Iron Pipe — Nom 24 in. (610 mm) diam (or smaller) service weight (or heavier) cast iron soil pipe, nom 12 in. (305 mm) diam (or smaller) or Class 50 (or heavier) ductile iron pressure pipe.
C. Conduit — Nom 6 in. (152 mm) diam (or smaller) steel conduit or nom 4 in. (102 mm) diam (or smaller) steel electrical metallic tubing
D. Copper Tubing — Nom 6 in. (152 mm) diam (or smaller) Type L (or heavier) copper tubing
E. Copper Pipe — Nom 6 in. (152 mm) diam (or smaller) Regular (or heavier) copper pipe.

F. Through Penetrating Product* — Flexible Metal Piping — The following types of steel flexible metal gas piping may be used:
1. Nom 2 in. (51 mm) diam (or smaller) steel flexible metal gas piping. Plastic covering on piping may or may not be removed on both sides of floor or wall assembly.

OMEGA FLEX INC

2. Nom 1 in. (25 mm) diam (or smaller) steel flexible metal gas piping. Plastic covering on piping may or may not be removed on both sides of floor or wall assembly.

GASTITE, DIV. OF TITEFLEX

3. Nom 1 in. (25 mm) diam (or smaller) steel flexible metal gas piping. Plastic covering on piping may or may not be removed on both sides of floor or wall assembly.

WARD MFG INC

3. Fill,Void or Cavity Material* — Caulk or Sealant — Min 5/8. 1-1/4,1-7/8 and 2-1/2 in. (16, 32, 48 and 64 mm) thickness of caulk for 1, 2, 3 and 4 hr rated assemblies, respectively, applied within annulus, flush with both surfaces of wall. Min 1/4 in. (6 mm) diam bead of caulk applied to gypsum board/penetrant interface at point contact location on both sides of wall.
The hourly F Rating of the firestop system is dependent upon the hourly fire rating of the wall assembly in which it is installed, as shown in the following table.
The hourly T Rating of the firestop system is dependent upon the type or size of the pipe or conduit and the hourly fire rating of the wall assembly in which it is installed, as tabulated below:

Max Pipe or Conduit Diam In	F rating Hr	T Rating Hr
1(25)	1 or 2	0+, 1 or 2
1(25)	3 or 4	3 or 4
4(102)	1 or 2	0
6(152)	3 or 4	0
12(305)	1 or 2	0

+When copper pipe is used, T Rating is 0 hr.

3M COMPANY — CP 25WB + or FB-3000 WT ,

*Bearing the UL Classification Marking Copyright 2010 Underwriters Laboratories Inc.

PNM ARCHITECTURE

PAUL N MEDLEY Architect
AIA ▪ NCARB

101 Smokerise Blvd
Longwood FL 32779
PHONE NUMBER 407-701-6440
WWW.PNM-ARCHITECTURE.COM

SEAL AR # 96512

PROJECT

Park Place at Douglas
Douglas Ave
Altamonte Springs Florida

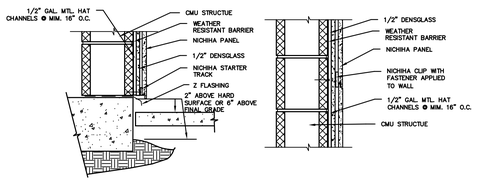
REVISION DATES

DATE
9-4-24

SHEET TITLE
UL ASSEMBLY REFERENCE

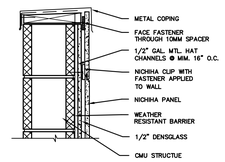
SHEET NUMBER
A10

PROJECT NO.
012-24

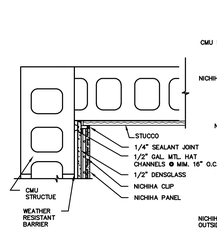


1 A11 NICHIHA VERTICAL – WALL BASE STARTER TRACK
SCALE: 1 1/2" = 1'-0"

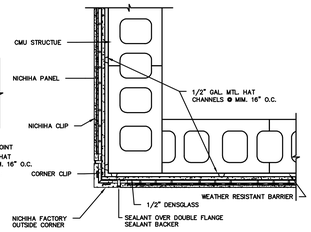
2 A11 NICHIHA VERTICAL – TYPICAL WALL CLIP CONNECTION
SCALE: 1 1/2" = 1'-0"



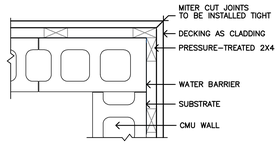
3 A11 NICHIHA VERTICAL – TOP OF WALL (PARAPET)
SCALE: 1 1/2" = 1'-0"



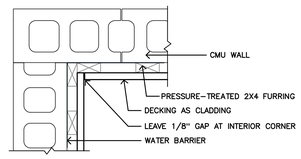
4 A11 NICHIHA HORIZONTAL INSIDE CORNER DETAIL
SCALE: 1 1/2" = 1'-0"



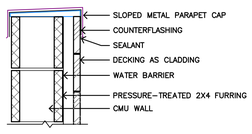
5 A11 NICHIHA HORIZONTAL OUTSIDE CORNER DETAIL TYPICAL
SCALE: 1 1/2" = 1'-0"



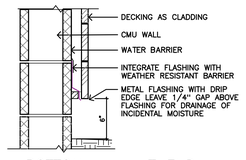
6 A11 OUTSIDE CORNER
SCALE 1 1/2" = 1'-0"



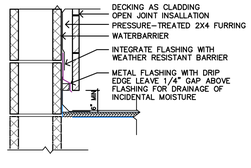
7 A11 INSIDE CORNER
SCALE 1 1/2" = 1'-0"



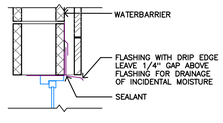
8 A11 PARAPET
SCALE 1 1/2" = 1'-0"



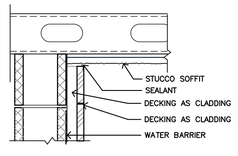
9 A11 BOTTOM WALL AT FND
SCALE 1 1/2" = 1'-0"



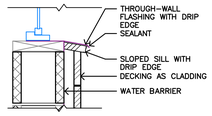
10 A11 BOTTOM OF WALL AT ROOF
SCALE 1 1/2" = 1'-0"



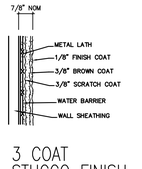
11 A11 WINDOW HEAD @ CMU
SCALE 1 1/2" = 1'-0"



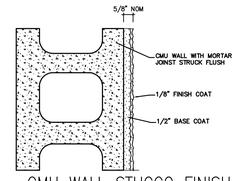
12 A11 POLYMER CLADDING TOP OF WALL AT STUCCO SOFFIT
SCALE 1 1/2" = 1'-0"



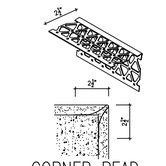
13 A11 WINDOW SILL @ CMU
SCALE 1 1/2" = 1'-0"



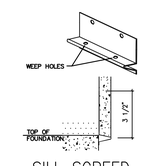
15 A11 3 COAT STUCCO FINISH
SCALE 3" = 1'-0"



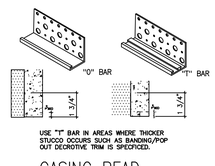
16 A11 CMU WALL STUCCO FINISH
SCALE 3" = 1'-0"



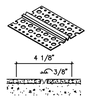
17 A11 CORNER BEAD
SCALE 3" = 1'-0"



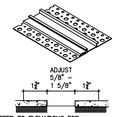
18 A11 SILL SCREED
SCALE 3" = 1'-0"



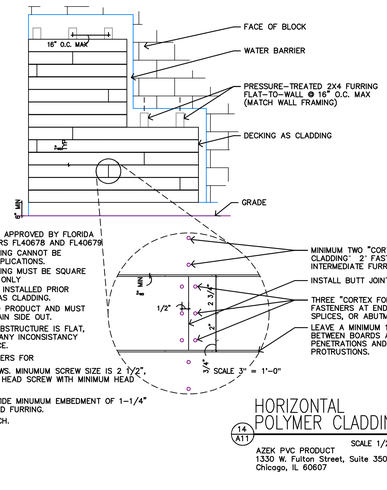
19 A11 CASING BEAD
SCALE 3" = 1'-0"



20 A11 V CONTROL JOINT
SCALE 3" = 1'-0"



21 A11 ADJUSTABLE SLIP JOINT REVEAL
SCALE 3" = 1'-0"



14 A11 HORIZONTAL POLYMER CLADDING
SCALE 1/2" = 1'-0"
AZEK PVC PRODUCT
1330 W. Fulton Street, Suite 350 | Chicago, IL 60607

PNM ARCHITECTURE
PAUL N MEDLEY Architect
AIA NCARB
101 Smokerise Blvd
Longwood FL 32779
PHONE NUMBER 407-701-6440
WWW.PNM-ARCHITECTURE.COM

SEAL AR # 96512

PROJECT
Park Place at Douglas
Douglas Ave
Altamonte Springs Florida

REVISION DATES

DATE
9-4-24

SHEET TITLE
CLADDING DETAILS

SHEET NUMBER
A11

PROJECT NO.
012-24

DESIGN CRITERIA

D1 ALL WORK SHALL CONFORM TO AT LEAST THE MINIMUM STANDARDS OF THE FLORIDA BUILDING CODE (FBC), EIGHTH EDITION (2023).

D2 DESIGN LOAD VALUES ARE INDICATED ON THE APPROPRIATE SHEETS AS FOLLOWS:
FOUNDATION DESIGN - SEE FOUNDATION NOTE F2 ON THIS SHEET
ROOF FRAMING DESIGN - SHEET S05
WIND DESIGN - SHEET S03
RAIN DESIGN:
15 MINUTE RAINFALL INTENSITY: 7.12 in/HR
60 MINUTE RAINFALL INTENSITY: 3.94 in/HR

D3 TO THE BEST OF THE ENGINEER'S KNOWLEDGE, THE STRUCTURAL PLANS AND SPECIFICATIONS HAVE BEEN DESIGNED IN ACCORDANCE WITH THE BUILDING CODE.

D4 EVERY REASONABLE EFFORT HAS BEEN MADE TO ENSURE COORDINATION BETWEEN THESE DRAWINGS AND THE BOUND STRUCTURAL SPECIFICATIONS. SHOULD THERE BE ANY DISCREPANCIES, THE CONTRACTOR SHALL THEN REQUEST A CLARIFICATION IN WRITING.

SPECIALTY ENGINEERING REQUIREMENTS

SE1 STEEL PAN STAIRS, SHIPS LADDERS AND OTHER ROOF ACCESS LADDERS SHALL BE DESIGNED BY THE FABRICATOR'S SPECIALTY ENGINEER AND SHALL INCLUDE STRINGERS, TREADS, HAND RAILINGS, PLATFORMS (AS REQUIRED), PAN INSERTS AND MISCELLANEOUS SUPPORTS AND CONNECTIONS. SHOP DRAWINGS AND CALCULATIONS SHALL BE SUBMITTED FOR REVIEW AND MUST BE SIGNED, DATED AND SEALED BY A STRUCTURAL ENGINEER REGISTERED IN THE SAME STATE AS THE PROJECT LOCATION. MINIMUM DESIGN LIVE LOAD SHALL BE 100 PSF FOR STEEL PAN STAIRS. SUBMITTALS SHALL INCLUDE THE JOINTING IN THE CONCRETE FILL AS REQUIRED TO MITIGATE PLASTIC SHRINKAGE CRACKING.

SE2 GUARDRAILS, HANDRAILS, POSTS AND SUPPORT CONNECTIONS SHALL BE DESIGNED BY THE FABRICATOR'S SPECIALTY ENGINEER. SHOP DRAWINGS AND CALCULATIONS SHALL BE SUBMITTED FOR REVIEW AND MUST BE SIGNED, DATED AND SEALED BY A ENGINEER REGISTERED IN THE SAME STATE AS THE PROJECT LOCATION. DUE CONSIDERATION SHALL BE GIVEN TO EXPANSION & CONTRACTION BY PROVIDING SLIP JOINTS AS REQUIRED. DESIGN LOADING(S) SHALL CONFORM TO ALL REQUIREMENTS OF THE BUILDING CODE (SEE DESIGN CRITERIA FOR THE APPLICABLE BUILDING CODE).

SE3 EXTERIOR CURTAIN WALLS AND STOREFRONTS SHALL BE DESIGNED BY THE VENDOR'S SPECIALTY ENGINEER AND SHALL INCLUDE FRAME, GLASS, GLAZING AND CONNECTIONS. SHOP DRAWINGS AND CALCULATIONS SHALL BE SUBMITTED FOR REVIEW AND MUST BE SIGNED, DATED AND SEALED BY A STRUCTURAL ENGINEER REGISTERED IN THE SAME STATE AS THE PROJECT LOCATION. DESIGN LOADING(S) SHALL CONFORM TO ALL REQUIREMENTS OF THE BUILDING CODE (SEE DESIGN CRITERIA FOR APPLICABLE BUILDING CODE). THE VENDOR SHALL PROVIDE WINDOW WALL REACTIONS TO THE ARCHITECT.

SE4 FLAGPOLES AND SITE LIGHTING POLES SHALL BE DESIGNED BY THE POLE VENDOR'S SPECIALTY ENGINEER AND SHALL INCLUDE POLES, FOUNDATIONS AND CONNECTIONS. SHOP DRAWINGS AND CALCULATIONS SHALL BE SUBMITTED FOR REVIEW AND MUST BE SIGNED, DATED AND SEALED BY A STRUCTURAL ENGINEER REGISTERED IN THE SAME STATE AS THE PROJECT LOCATION. MINIMUM DESIGN LOADS SHALL CONFORM TO NAAMM FP1001-17 "SPECIFICATIONS FOR DESIGN LOADS OF METAL FLAGPOLES".

SE5 ALUMINUM AWNINGS, WALKWAY CANOPIES AND THEIR FOUNDATIONS SHALL BE DESIGNED BY THE FABRICATOR'S SPECIALTY ENGINEER AND SHALL INCLUDE FRAME, COVERING AND CONNECTIONS. SHOP DRAWINGS AND CALCULATIONS SHALL BE SUBMITTED FOR REVIEW AND MUST BE SIGNED, DATED AND SEALED BY A STRUCTURAL ENGINEER IN THE SAME STATE AS THE PROJECT LOCATION. DESIGN LOADING(S) SHALL CONFORM TO ALL REQUIREMENTS OF THE BUILDING CODE. (SEE DESIGN CRITERIA FOR THE APPLICABLE BUILDING CODE). THE ALUMINUM WALKWAY CANOPY MANUFACTURER SHALL PROVIDE CONCRETE SUB-CONTRACTOR BIDDERS WITH FOUNDATION AND REINFORCING REQUIREMENTS FOR THEIR CANOPY SYSTEM PRIOR TO BID.

SE6 EXTERIOR LIGHT STEEL FRAMING, INCLUDING BUT NOT LIMITED TO: WALLS, EXTERIOR CEILINGS, FASCIAS AND SOFFITS SHALL BE DESIGNED BY A SPECIALTY ENGINEER. STRUCTURAL ELEMENTS HAVE BEEN PROVIDED FOR THE ATTACHMENT OF THE LIGHT STEEL FRAMING. THE LIGHT STEEL SYSTEM SUPPLIER SHALL DESIGN AND DETAIL ALL CONNECTIONS TO THESE ELEMENTS. ANY FURTHER ELEMENTS REQUIRED FOR THE SUPPORT SHALL BE DESIGNED AND SUPPLIED AS PART OF THE LIGHT STEEL SYSTEM. SHOP DRAWINGS AND CALCULATIONS SHALL BE SUBMITTED FOR REVIEW AND MUST BE SIGNED, DATED AND SEALED BY AN ENGINEER REGISTERED IN THE SAME STATE AS THE PROJECT LOCATION. DESIGN LOADING(S) SHALL CONFORM TO ALL THE REQUIREMENTS OF THE BUILDING CODE (SEE DESIGN CRITERIA FOR THE APPLICABLE BUILDING CODE) AND MAXIMUM DEFLECTIONS SHALL BE AS FOLLOWS: L/600 (BRICK VENEER), L/360 (STUCCO) & L/240 (FLEXIBLE FINISHES). A CERTIFIED TESTING AGENCY SHALL BE ENGAGED TO PERFORM INDUSTRY STANDARD INSPECTIONS TO ENSURE CONFORMANCE WITH PLANS AND SPECIFICATIONS (IF PROVIDED). SUBMIT REPORTS TO ARCHITECT AND ENGINEER.

SE7 PROVIDE ENGINEERED SUBMITTALS, SIGNED AND SEALED BY A STRUCTURAL ENGINEER REGISTERED IN THE SAME STATE AS THE PROJECT LOCATION, FOR ALL MECHANICAL, ELECTRICAL AND PLUMBING SUPPORTS OR ATTACHMENTS NOT INCLUDED WITHIN THE CONSTRUCTION DOCUMENTS FOR ALL ITEMS THAT REQUIRE ANYTHING OTHER THAN THE MANUFACTURER'S STANDARD HARDWARE OR ARE EXPOSED TO WIND LOADS. AN EXAMPLE OF POSSIBLE ITEMS THAT THIS WOULD APPLY TO ARE, INCLUDING BUT NOT LIMITED TO, ROOFTOP AND/OR WALL MOUNTED DUCTS, PIPES AND TRANSFORMERS.

FLORIDA PRODUCT APPROVAL / NOTICE OF ACCEPTANCE

FPA1 THE STRUCTURAL ROOF DECK(S) FOR THIS PROJECT HAVE BEEN DESIGNED TO BE COMPLIANT WITH THE CODES AND PRESSURES LISTED HEREIN. ANY PRODUCTS INSTALLED OVER THE STRUCTURAL DECK(S) SHALL HAVE BEEN TESTED AS AN ASSEMBLY, INCLUSIVE OF THE STRUCTURAL DECK, AND SHALL BE SUBMITTED FOR APPROVAL WITH THE FPA/NOA CLEARLY IDENTIFIED. FAILURE TO PROVIDE THIS INFORMATION SHALL BE CAUSE FOR REJECTION BY THE ARCHITECT AND BBM STRUCTURAL ENGINEERS, INC. ALL WARRANTIES MUST BE PART OF THE ROOFING SUBMITTAL. ANY WARRANTY CONTAINING LANGUAGE WHICH "EXCLUDES GALE AND/OR HURRICANE FORCE WIND DAMAGE", OR "EXCLUDES DAMAGE FROM GALE AND/OR HURRICANE FORCE WINDS", OR ANY OTHER SIMILAR VERBIAGE, SHALL BE REJECTED AND THE ENTIRE PRODUCT ASSEMBLY SHALL NOT BE PERMITTED FOR USAGE ON THE PROJECT.

FPA2 RATIONAL ANALYSIS OF THE ROOF SYSTEM SHALL NOT BE PERMITTED WITHOUT THE WRITTEN CONSENT OF THE OWNER, ARCHITECT AND ENGINEER, AND THEN, ONLY WHERE PERMITTED BY THE LOCAL JURISDICTION HAVING DIRECT AUTHORITY.

GENERAL

G1 THE GENERAL CONTRACTOR SHALL REVIEW AND DETERMINE THAT DIMENSIONS ARE COORDINATED BETWEEN ARCHITECTURAL AND STRUCTURAL DRAWINGS PRIOR TO FABRICATION OR START OF CONSTRUCTION.

G2 THE GENERAL CONTRACTOR SHALL PROVIDE ALL MEASURES AS NECESSARY TO PROTECT THE STRUCTURE, THE WORK PERSONNEL AND OTHER PEOPLE DURING CONSTRUCTION. HE SHALL SUPERVISE AND DIRECT THE WORK AND BE RESPONSIBLE FOR ALL CONSTRUCTION.

G3 NO STRUCTURAL MEMBER SHALL BE CUT, NOTCHED OR OTHERWISE REDUCED IN STRENGTH.

G4 THE GENERAL CONTRACTOR SHALL COORDINATE ARCHITECTURAL, MECHANICAL AND ELECTRICAL DRAWINGS FOR ANCHORED, EMBEDDED AND SUPPORTED ITEMS WHICH AFFECT THE STRUCTURAL DRAWINGS AND NOTIFY THE ARCHITECT/ENGINEER OF ANY DISCREPANCIES.

G5 ALL SHOP DRAWING SUBMITTALS SHALL BE SUBMITTED VIA ELECTRONIC MEDIA (i.e. PDF OR DWF FORMAT). HARD COPY SUBMITTALS WILL NOT BE ACCEPTED.

1. SUBMITTALS SHALL NOT BE SECURED IN ANY FORMAT THAT WILL PREVENT COMMENTS FROM BEING ADDED.
2. SUBMITTALS THAT ARE REQUIRED TO BE SIGNED AND SEALED SHALL BE SUBMITTED WITH A VISIBLE INK SEAL OR SHADED RAISED SEAL AT TIME OF FIRST SUBMITTAL, AND SHALL BE DIGITALLY SIGNED THAT MEETS THE REQUIREMENTS OF THE STATE BOARD WHERE THE PROJECT IS LOCATED.
3. SUBMITTALS THAT ARE MARKED PRELIMINARY OR ARE OTHERWISE INCOMPLETE WILL BE RETURNED REJECTED AND OR NOT REVIEWED. SUBMITTALS SHALL BE IN A FINAL OR COMPLETED STATE PRIOR TO SUBMISSION TO BBM.

G6 ANY SUBMITTALS RECEIVED BY ARCH/ENG THAT HAVE NOT BEEN CHECKED BY THE GC AND HIS SUBCONTRACTOR SHALL BE RETURNED WITHOUT REVIEW.

G7 ALL SECTIONS AND DETAILS SHALL BE CONSTRUED TO BE TYPICAL OR SIMILAR UNLESS ANOTHER SECTION OR DETAIL IS NOTED.

G8 ANY CONFLICTS NOTICED, OR OBSERVED, BETWEEN THE WRITTEN SPECIFICATIONS AND THE CONSTRUCTION DOCUMENTS DURING PROJECT BIDDING OR PROJECT CONSTRUCTION SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE STRUCTURAL ENGINEER-OF-RECORD. IF SUCH DISCREPANCY IS NOT NOTICED OR BROUGHT TO THE ATTENTION OF THE STRUCTURAL ENGINEER-OF-RECORD FOR WRITTEN CLARIFICATION, THE CONTRACTOR/SUBCONTRACTOR SHALL PROVIDE, AT PROJECT BID OR DURING PROJECT CONSTRUCTION, THE MORE STRINGENT AND/OR MORE COSTLY OF THE TWO ITEMS IN THE BID AND/OR FINAL INSTALLATION.

G9 "BBM STRUCTURAL ENGINEERS" ASSUMES NO RISK OR LIABILITY FOR THE SITE SAFETY OR WELL-BEING OF ANY CONTRACTOR, SUB-CONTRACTOR NOR THEIR EMPLOYEES DURING THE CONSTRUCTION OF THE PROJECT CONTAINED IN THESE DOCUMENTS.

G10 GENERAL CONTRACTOR/CONSTRUCTION MANAGER SHALL SUPPLY ALL SUB-CONTRACTORS WITH THE STRUCTURAL GENERAL NOTE SHEETS AS WELL AS THE STRUCTURAL DRAWINGS.

G11 THE STRUCTURAL STEEL AND OPEN WEB STEEL JOISTS SHALL BE FABRICATED AND ERECTED IN FULL CONFORMANCE WITH THE "OSHA STEEL ERECTION STANDARD". IF THE CONSTRUCTION DRAWINGS DEVIATE FROM THE OSHA STANDARD THEN THE FABRICATOR SHALL PROVIDE SUBMITTALS THAT CLEARLY INDICATE THE DEVIATION WITH A REVISION CLOUD AND REQUEST APPROVAL FROM "BBM" TO MAKE THE CHANGE SO THAT CONFORMANCE WITH THE OSHA STANDARD IS ASSURED.

G12 THE CONTRACTOR'S MEANS AND METHODS SHALL FULLY CONFORM TO THE REQUIREMENTS OF SEI/ASCE 37 (DESIGN LOADS ON STRUCTURES DURING CONSTRUCTION) UNTIL ALL OF THE STRUCTURAL ELEMENTS ARE IN PLACE AND HAVE RECEIVED THE INSPECTOR'S APPROVAL.

G13 REFER TO ARCHITECTURAL DRAWINGS FOR ROOF COVERINGS. ROOF COVERINGS FOR ENHANCED HURRICANE PROTECTION AREA (EHPA) FACILITIES SHALL BE PROVIDED IN ACCORDANCE WITH THE LATEST ASTM AND FACTORY MUTUAL STANDARDS FOR MATERIALS AND WIND UPLIFT FORCES. ROOFS SHALL BE INSPECTED BY A LICENSED ENGINEER/ ARCHITECT AND A REPRESENTATIVE OF THE ROOFING MANUFACTURER AND REPORTS SHALL BE SUBMITTED TO THE OWNER AND ARCHITECT.

FOUNDATIONS

F1 THE FOUNDATIONS AND SLAB-ON-GRADE DESIGN CONTAINED HEREIN IS BASED SOLELY UPON THE PROJECT'S GEOTECHNICAL REPORT (PROJECT NUMBER GTA #3123I912, DATED SEPTEMBER 27, 2023, AS PREPARED BY GEO-TECHNOLOGY ASSOCIATES, INC. BBM HAS RELIED EXCLUSIVELY ON THE CONTENTS AND RECOMMENDATIONS WITHIN THIS REPORT, BUT ACCEPTS NO RESPONSIBILITY WHATSOEVER FOR ITS CONTENTS OR ACCURACY. THE GENERAL CONTRACTOR/ CONSTRUCTION MANAGER SHALL MAKE THEMSELVES FAMILIAR WITH THE REPORT BEFORE THE COMMENCEMENT OF CONSTRUCTION.

F2 FOUNDATION DESIGN IS BASED ON A NET ALLOWABLE SOIL BEARING PRESSURE OF 2500 PSF. COMPACTION UNDER ALL FOUNDATIONS SHALL ALSO BE AS STATED IN NOTE SOG1.

F3 A CERTIFIED TESTING AGENCY SHALL BE ENGAGED TO PERFORM INDUSTRY-STANDARD SOIL DENSITY TESTS TO ENSURE CONFORMANCE WITH GEOTECHNICAL SOILS REPORT. SUBMIT REPORTS TO ARCHITECT AND ENGINEER.

F4 CONTRACTOR, IN CONJUNCTION WITH GEOTECHNICAL FIELD REPRESENTATIVE, SHALL DETERMINE IF ANY UNSUITABLE CONDITIONS ARE DISCOVERED DURING EXCAVATION WHICH WOULD PREVENT ATTAINMENT OF THE DESIGN SOIL PRESSURE RECOMMENDED BY THE SOILS REPORT.

F5 FOOTINGS SHALL BE CAST TO THE SCHEDULED SIZE AND SHALL NOT BE OVERSIZED BY MORE THAN 6" ON ANY SIDE FOR FOOTING WIDTH OF AT LEAST 6'-0". FOR FOOTINGS LESS THAN 6'-0" IN WIDTH THE MAXIMUM OVERSIZING SHALL BE 3".

F6 CONTRACTOR SHALL BE PREPARED FOR AND SHALL INCLUDE COST OF FORMING FOUNDATIONS SHOULD THE EARTH NOT PROVIDE ADEQUATE BANK STABILITY.

SLAB ON GRADE

SOG1 UNLESS NOTED OTHERWISE IN THE GEOTECHNICAL REPORT, COMPACT INTERIOR FILL TO 95% OF MODIFIED PROCTOR MAXIMUM DRY DENSITY (ASTM D1557). SOIL COMPACTION SHALL BE FIELD-CONTROLLED BY A REPRESENTATIVE TECHNICIAN OF A QUALIFIED LABORATORY. EACH LAYER OF FILL SHALL NOT EXCEED 12" THICK AND SHALL BE COMPACTED PRIOR TO PLACEMENT OF NEXT LAYER.

SOG2 MAXIMUM SPACING OF CONTROL JOINTS (i.e. SAWCUT JOINT OR CONSTRUCTION JOINT) SHALL BE AS SET IN THE TABLE BELOW, OR AS NOTED ON PLANS. THE MORE STRINGENT SHALL APPLY. PATTERNS SHALL BE APPROXIMATELY SQUARE WITH A RATIO OF LONG SIDE TO SHORT SIDE NOT EXCEEDING 1.5 TO 1. SEE SLAB-ON-GRADE DETAILS FOR ADDITIONAL INFORMATION.

SLAB THICKNESS (IN)	* 3/4" OR LARGER AGGREGATE SPACING (FT)
4	12
5	13
6	14
7 AND GREATER	15

* MIX DESIGNS CONTAINING AGGREGATE LESS THAN 3/4" ARE NOT ACCEPTABLE.

SOG3 GENERAL CONTRACTOR SHALL COORDINATE EXACT LOCATION OF SJ'S AND CJ'S WITH ARCHITECTURAL FLOOR FINISHES TO ENSURE SLAB JOINTS DO NOT READ THROUGH.

SOG4 SLAB THICKNESS SHALL BE INCREASED AS REQUIRED TO PROVIDE ADEQUATE SUPPORT FOR CRANE LOADS WITHOUT CRACKING SLAB.

CONCRETE AND REINFORCING

C1 A CERTIFIED TESTING AGENCY SHALL BE ENGAGED TO PERFORM INDUSTRY STANDARD TESTING INCLUDING SLUMP TESTS AND CYLINDER BREAKS TO ENSURE CONFORMANCE WITH PLANS AND SPECIFICATIONS (IF PROVIDED). SUBMIT REPORTS TO ARCHITECT AND ENGINEER.

C2 CONCRETE WORK SHALL CONFORM TO ACI 318-19 BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE.

C3 ALL CONCRETE SHALL HAVE THE FOLLOWING PROPERTIES:

LOCATION	28 DAY STRENGTH	SLUMP	COARSE AGGREGATE(S)	EXPOSURE CATEGORIES & CLASSES (PER ACI 318-19 SECTION 19.3.1)			
				F	S	W	C
FOUNDATIONS	3000 PSI	4" +/- 1"	1"	F0	S0	W0	C0
SLAB-ON-GRADE: FOOT TRAFFIC	3000 PSI	4" +/- 1"	1"	F0	S0	W0	C0
TIE BEAMS AND TIE COLUMNS (MAX 50' BETWEEN COLD JOINTS)	3000 PSI	6" +/- 1"	3/8"	F0	S0	W0	C0
BEAMS & COLUMNS	3000 PSI	4" +/- 1"	3/8" & 1"	F0	S0	W0	C0

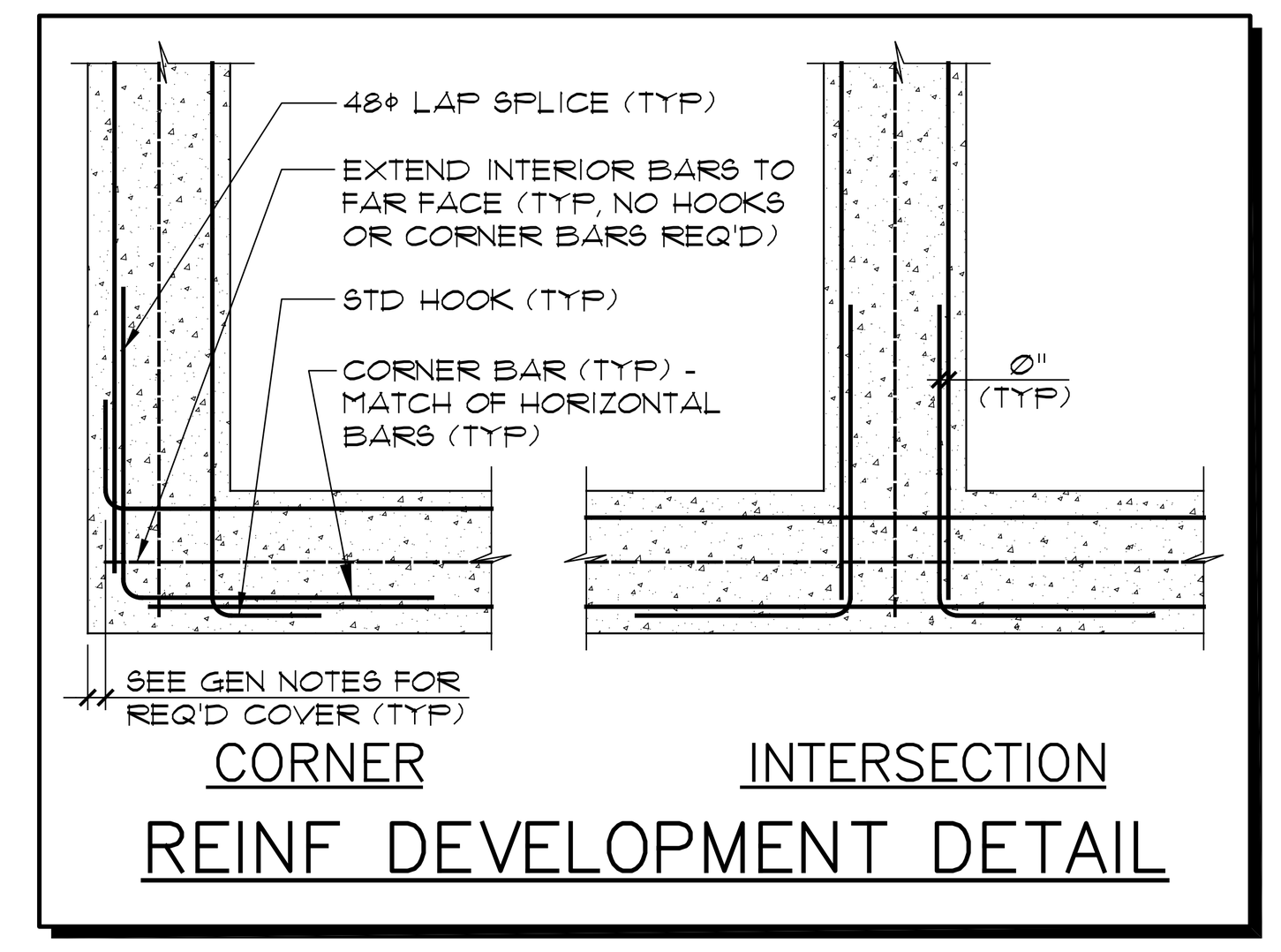
NOTES:
1. SLUMP FOR RAMPS AND SLOPING SURFACES SHALL NOT EXCEED 4".
2. ALL CONC MIXES SHALL HAVE A MAXIMUM SAND TO TOTAL AGGREGATE RATIO OF 0.50.
3. A 2" OR 3" PUMP SHALL BE ACCEPTABLE FOR COLUMNS AND TIE BEAMS BUT WILL NOT BE ALLOWED FOR FOUNDATIONS, SLABS AND CONCRETE BEAMS.
4. READY MIX SUPPLIER SHALL DESIGN THE MIXES THAT CONTAIN MULTIPLE AGGREGATES TO BE WELL GRADATED.
5. SLABS SHALL NOT BE AIR ENTRAINED.
6. FOR SLABS THAT SHALL RECEIVE MOISTURE SENSITIVE FLOORING:
 a. CONTRACTOR SHALL WORK WITH THE READY MIX SUPPLIER TO PROVIDE A MIX DESIGN THAT WILL BE AT OR BELOW 75% RELATIVE HUMIDITY AT THE TIME THE FLOORING IS SCHEDULED TO BE INSTALLED.
 b. DO NOT USE LIGHTWEIGHT AGGREGATES.
 c. PROVIDE A MIX WITH GOOD SELF-DESICCATING PROPERTIES. CONSIDER ADDING 2%-4% SILICA FUME.
 d. DO NOT HARD TROWEL THE SURFACE BUT INSTEAD PROVIDE A LIGHTLY TROWELLED SURFACE.

C4 CONCRETE MIX DESIGN SUBMITTALS:
1. EACH MIX DESIGN SHALL BE LABELED TO INDICATE THE AREA IN WHICH THE CONCRETE IS TO BE PLACED (I.E. FOUNDATIONS, SLAB-ON-GRADE, COLUMNS, ETC.). FAILURE TO DO SO WILL CAUSE DELAY AND/OR REJECTION OF SUBMITTALS.
2. PROPOSED MIX DESIGN SHALL BE IN ACCORDANCE WITH METHOD 1 OR METHOD 2 OF ACI 301. PROVIDE SUPPORTING DATA IN TABULAR FORM FOR EACH SEPARATE PROPOSED MIX.
3. SUBMIT CONCRETE MIX DESIGN FOR EACH PROPOSED CLASS OF CONCRETE.

C5 REBAR SHALL CONFORM TO ASTM A615 GRADE 60. WELDED WIRE FABRIC SHALL CONFORM TO ASTM A1064 AND SHALL BE LAPPED MINIMUM ONE MESH + 2" WHERE SPLICED. ALL REINFORCING SHALL BE DOMESTICALLY PRODUCED. ALL REBAR THAT IS TO BE WELDED SHALL BE LOW ALLOY ASTM A706 GRADE 60.

C6 SPLICES AND ANCHORAGE OF REINFORCING SHALL BE AS FOLLOWS (UNLESS OTHERWISE NOTED):
WELDED WIRE FABRIC: 8"
ALL OTHER (UNLESS SCHEDULED OTHERWISE: #6 BAR & SMALLER: 48 DIA (12" MIN); #7 BAR & LARGER: 60 DIA

C7 REINFORCEMENT IN WALLS, FOOTINGS AND BEAMS SHALL BE CONTINUOUS AND LAPPED 48 BAR DIA AT SPLICE UNLESS OTHERWISE NOTED. HOOK AND LAP ALL CORNER AND INTERSECTING BARS. (SEE REINF DEVELOPMENT DETAIL).

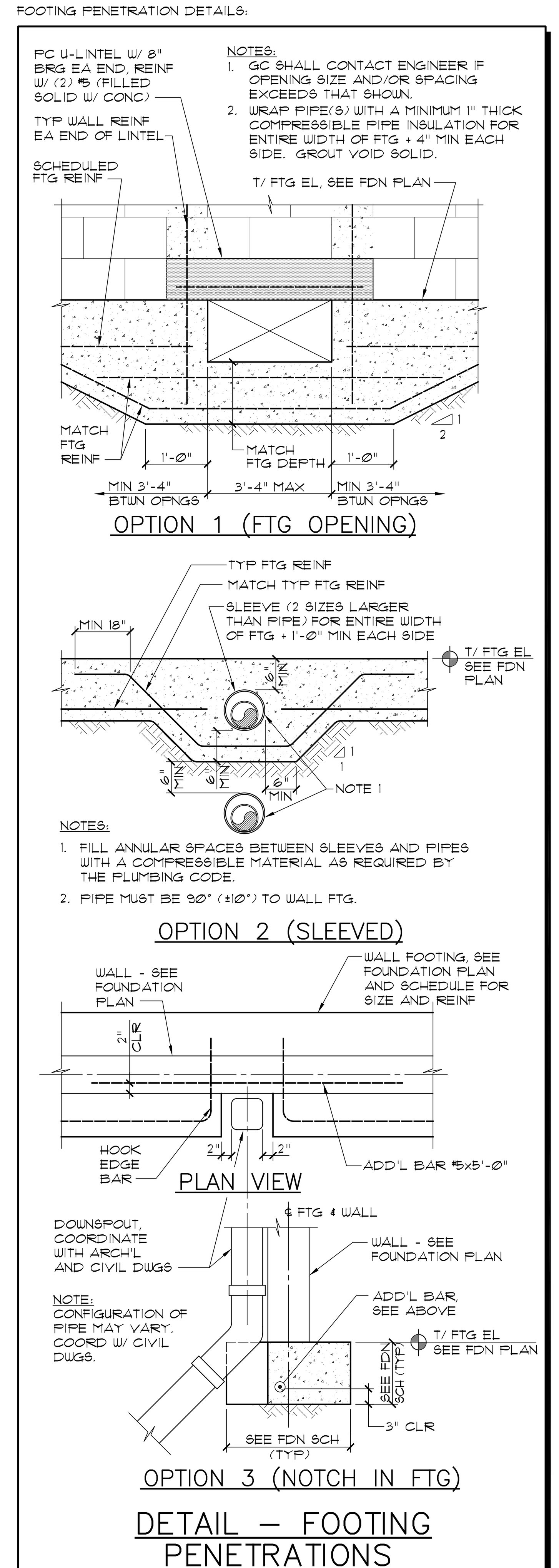


REINF DEVELOPMENT DETAIL

C8 COVER FOR REINFORCING SHALL BE AS FOLLOWS:

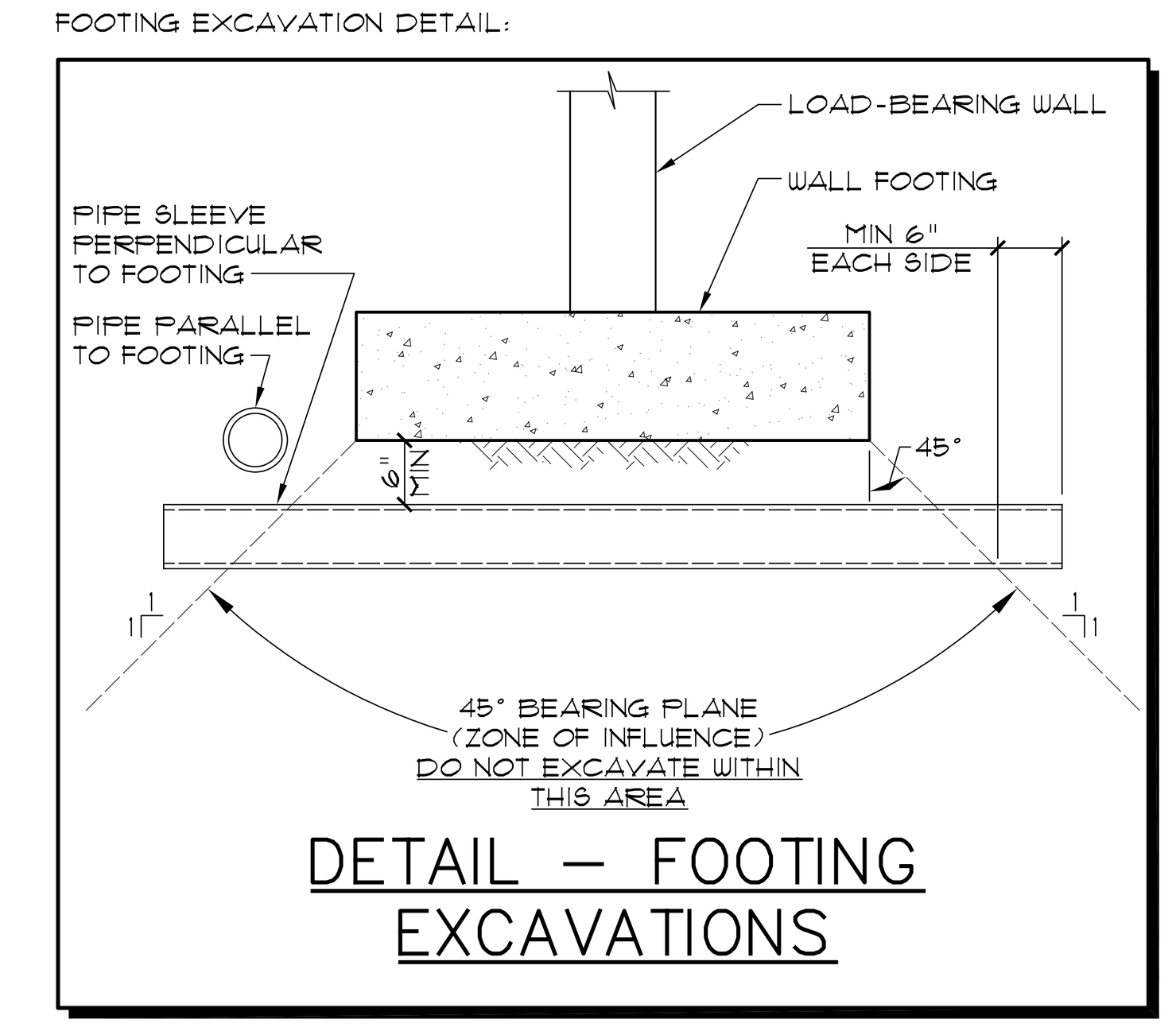
CONCRETE CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH:	3"
CONCRETE EXPOSED TO EARTH OR WEATHER:	
#6 THRU #18 BARS:	2"
#5 BAR, W31 OR D31 WIRE AND SMALLER:	1 1/2"
CONCRETE NOT EXPOSED TO EARTH OR WEATHER:	
SLABS, WALLS, JOISTS:	
#14 AND #18 BARS:	1 1/2"
#11 BAR AND SMALLER:	3/4"
BEAMS, COLUMNS: PRIMARY REINF, TIES, STIRRUPS, SPIRALS:	1 1/2"

C9 FOOTING PENETRATION DETAILS:



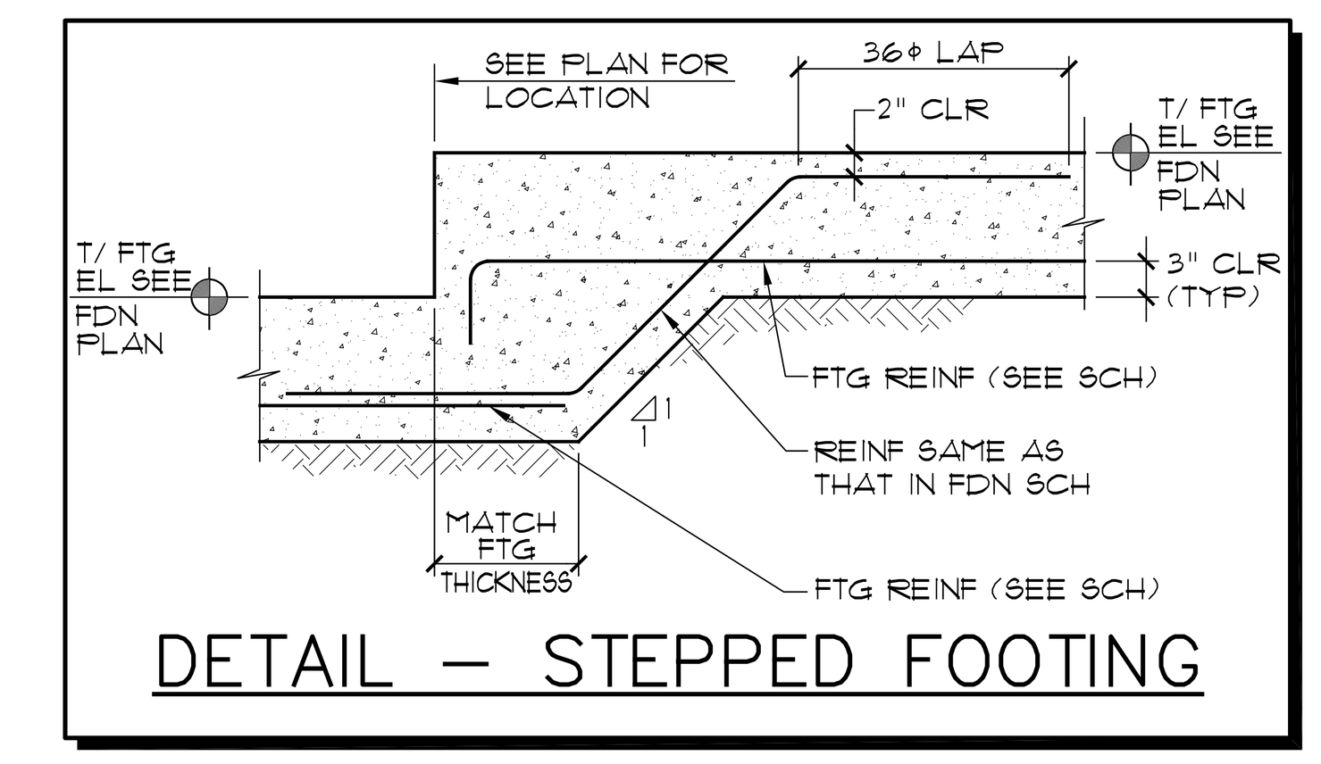
DETAIL – FOOTING PENETRATIONS

C10 FOOTING EXCAVATION DETAIL:



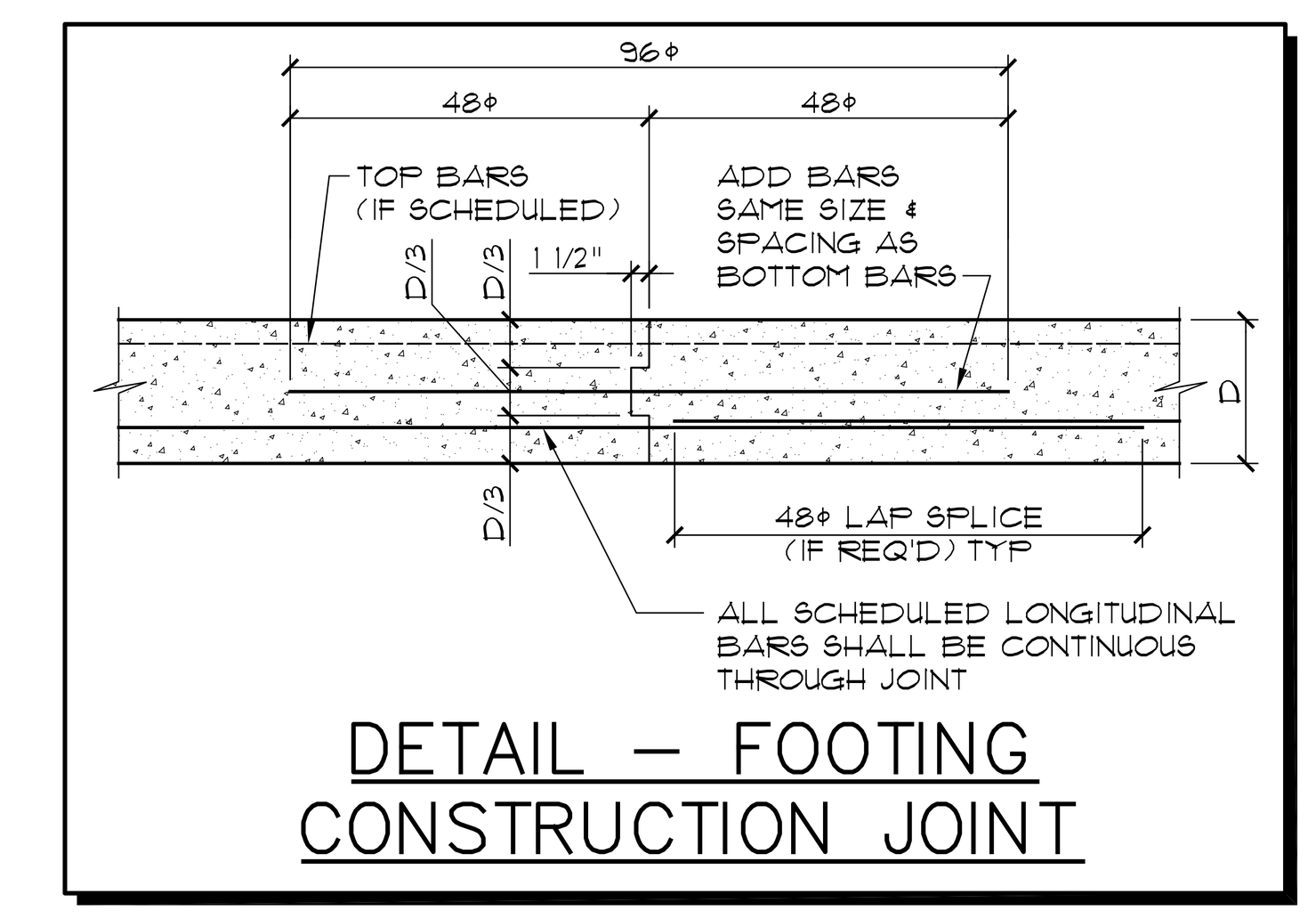
DETAIL – FOOTING EXCAVATIONS

C11 STEPPED FOOTING DETAIL (IF REQUIRED):



DETAIL – STEPPED FOOTING

C12 FOOTING CONSTRUCTION JOINT (IF REQUIRED):



DETAIL – FOOTING CONSTRUCTION JOINT

POST-INSTALLED ANCHORS

PIA1 POST-INSTALLED ANCHORS SHALL ONLY BE USED WHERE SPECIFIED ON THE CONSTRUCTION DOCUMENTS. THE CONTRACTOR SHALL OBTAIN APPROVAL FROM THE STRUCTURAL ENGINEER-OF-RECORD (SEOR) PRIOR TO INSTALLING POST-INSTALLED ANCHORS IN PLACE OF MISSING OR MISPLACED CAST-IN-PLACE ANCHORS. CARE SHALL BE TAKEN IN PLACING POST-INSTALLED ANCHORS TO AVOID CONFLICTS WITH EXISTING REBAR. HOLES SHALL BE DRILLED AND CLEANED AND PRODUCT SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S PRINTED INSTALLATION INSTRUCTIONS (MPII). SUBSTITUTION REQUESTS, FOR PRODUCTS OTHER THAN THOSE SPECIFIED BELOW, SHALL BE SUBMITTED BY THE CONTRACTOR TO THE STRUCTURAL ENGINEER-OF-RECORD ALONG WITH CALCULATIONS THAT ARE PREPARED & SEALED BY A REGISTERED PROFESSIONAL ENGINEER IN THE SAME STATE AS PROJECT LOCATION. THE CALCULATIONS SHALL DEMONSTRATE THAT THE SUBSTITUTED PRODUCT IS CAPABLE OF ACHIEVING EQUIVALENT OR BETTER PERFORMANCE VALUES OF THE SPECIFIED PRODUCT USING THE APPROPRIATE DESIGN PROCEDURE AND/OR STANDARD(S) AS REQUIRED BY THE BUILDING CODE.

PIA2 THE CONTRACTOR SHALL ARRANGE FOR AN ANCHOR MANUFACTURER'S REPRESENTATIVE TO PROVIDE ONSITE INSTALLATION TRAINING FOR ALL OF THEIR ANCHORING PRODUCTS SPECIFIED. THE STRUCTURAL ENGINEER OF RECORD MUST RECEIVE DOCUMENTED CONFIRMATION THAT ALL OF THE CONTRACTOR'S PERSONNEL WHO INSTALL ANCHORS ARE TRAINED PRIOR TO THE COMMENCEMENT OF INSTALLING ANCHORS. ADDITIONALLY, INSTALLATION OF ADHESIVE ANCHORS IN HORIZONTAL TO VERTICALLY OVERHEAD ORIENTATION SHALL BE DONE BY CERTIFIED ADHESIVE ANCHOR INSTALLER (AAI) AS CERTIFIED THROUGH ACI AND IN ACCORDANCE WITH ACI 318-19 (SECTION 17.2.3). PROOF OF CURRENT CERTIFICATION SHALL BE SUBMITTED PRIOR TO COMMENCEMENT OF INSTALLATION.

PIA3 CONCRETE ANCHORS:

A. MECHANICAL ANCHORS FOR USE IN CRACKED AND UNCRACKED CONCRETE SHALL HAVE BEEN TESTED AND QUALIFIED FOR USE IN ACCORDANCE WITH ACI 355.2 AND ICC-ES AC193. PRE-APPROVED MECHANICAL ANCHORS INCLUDE:
1. DEWALT "POWER-STUD+ SD1" (ICC-ES ESR-2818)
2. DEWALT "POWER-STUD SD2, SD4 (304SS) AND SD6 (316SS)" (ICC-ES ESR-2502)
3. DEWALT "SCREW-BOLT+" (ICC-ES ESR-3889)
4. DEWALT "SNAKE+" (ICC-ES ESR-2272)
5. DEWALT "MINI-UNDERCUT+" (ICC-ES ESR-3912)
6. HILTI KWIK BOLT-TZ2 EXPANSION ANCHOR SAFE SET SYSTEM WITH AT MODULE FOR APPLICABLE SIZES (ICC-ES ESR-4266)
7. HILTI KWIK BOLT 1 EXPANSION ANCHOR SAFE SET SYSTEM WITH HOLLOW DRILL BIT AND VACUUM AND AT MODULE FOR APPLICABLE SIZES PER IAPMO UES ER-678
8. HILTI KWIK HUS-EZ (KH-EZ), KH-EZ CRC, KH-EZ SS316, KH-EZ C, KH-EZ E, KH-EZ I, AND KH-EZ P SCREW ANCHOR SAFE SET SYSTEM WITH HOLLOW DRILL BIT AND VACUUM PER ICC-ES ESR-3027
9. SIMPSON STRONG-TIE "STRONG-BOLT 2" (ICC-ES ESR-3037)
10. SIMPSON STRONG-TIE "TITEN-HD" (ICC-ES ESR-2713)
11. SIMPSON STRONG-TIE "STAINLESS STEEL TITEN HD" (IAPMO UES ER-493)

B. ADHESIVE ANCHORS FOR USE IN CRACKED AND UNCRACKED CONCRETE SHALL BE INSPECTED AS FOLLOWS: AT THE ONSET OF EACH APPLICATION, A MANUFACTURER'S REPRESENTATIVE MUST BE PRESENT TO WITNESS AT LEAST FIVE COMPLETE INSTALLATIONS. INSTALLERS MUST BE TRAINED BY THE MANUFACTURER AND MANUFACTURER SHALL SUBMIT DOCUMENTATION TO THE CONTRACTOR INDICATING TRAINING HAS TAKEN PLACE. TRAINED INSTALLERS SHALL PROVIDE WRITTEN DOCUMENTATION TO THE CONTRACTOR THAT ALL ANCHORS HAVE BEEN INSTALLED PER THE MPII. CONTRACTOR SHALL SUBMIT THIS DOCUMENTATION TO THE SEOR. ADHESIVE ANCHORS SHALL BE INSTALLED IN CONCRETE HAVING MINIMUM AGE OF 21 DAYS. HOLES SHALL BE DRY AT THE TIME OF INSTALLATION. ADHESIVES SHALL HAVE MAX IN-SERVICE SHORT-TERM TEMPERATURE OF 150°F, AND MAX IN-SERVICE LONG-TERM TEMPERATURE OF 110°F. PRIOR TO INSTALLATION OF ADHESIVE ANCHORS IN HORIZONTAL OR UPWARDLY INCLINED ORIENTATIONS RESISTING SUSTAINED TENSION LOADS, INSTALLERS ARE REQUIRED TO BE CERTIFIED IN ACCORDANCE WITH THE ACI / CRSI ADHESIVE ANCHOR INSTALLER CERTIFICATION PROGRAM AND MUST BE CONTINUOUSLY INSPECTED. ANCHORS SHALL ALSO HAVE BEEN TESTED AND QUALIFIED FOR USE IN ACCORDANCE WITH ICC-ES AC308. PRE-APPROVED ADHESIVE ANCHORS INCLUDE THE FOLLOWING PRODUCTS:
1. DEWALT
 a. "PURE 220+" WITH DUSTX+ HOLLOW DRILL BIT SYSTEM OR USING TRADITIONAL BLOW OUT METHOD PER ICC-ES ESR-5144.
 b. AC200+ WITH DUSTX+ HOLLOW DRILL BIT SYSTEM OR USING TRADITIONAL BLOW OUT METHOD PER ICC-ES ESR-4027.
2. DEWALT AC200+ GOLD (ICC-ES ESR-4027)
3. HILTI
 a. HILTI HIT-HY 200 V3 SAFE SET SYSTEM WITH THE HILTI HIT-Z ROD PER ICC ESR-4868.
 b. HILTI HIT-HY 200 V3 SAFE SET SYSTEM WITH HILTI HOLLOW DRILL BIT (TE-CD OR TE-YD) AND VACUUM WITH HAS-E THREADED ROD PER ICC ESR-4868.
 c. HILTI HY 200 V3 ADHESIVE ANCHOR USING TRADITIONAL CLEANING METHOD, 2 BLOWS OF COMPRESSED AIR (90 PSI MINIMUM, OIL FREE COMPRESSOR), 2 BRUSHES WITH SAME SIZE AS HOLE WIRE BRUSH, AND 2 MORE BLOWS, (2x2x2 CLEANING METHOD) PER ICC ESR-4868.
 d. HILTI HIT-RE 500-V3 EPOXY ADHESIVE ANCHORING SYSTEM WITH HAS-E THREADED ROD PER ICC ESR-3814 FOR SLOW CURE APPLICATIONS.
 e. HILTI KWIK-X DUAL ACTION ANCHOR SAFESET SYSTEM WITH KHC CAPSULE ADHESIVE AND KWIK-HUS EZ PER ICC ESR-5065
4. SIMPSON STRONG-TIE "SET-3G" (ICC-ES ESR-4057)
5. SIMPSON STRONG-TIE "SET-XP" (ICC-ES ESR-2508)
6. SIMPSON STRONG-TIE "AT-XP" (IAMPO UES ER-263)
7. SIMPSON STRONG-TIE "ET-HP" (ICC-ES ESR-3372)

PIA4 MASONRY ANCHORS:

A. ANCHORAGE TO SOLID-GROUTED CONCRETE MASONRY
1. MECHANICAL AND CONCRETE SCREW ANCHORS FOR USE IN SOLID-GROUTED CONCRETE MASONRY SHALL HAVE BEEN TESTED AND QUALIFIED FOR USE IN ACCORDANCE WITH ICC-ES AC01 OR AC106, RESPECTIVELY. PRE-APPROVED MECHANICAL AND CONCRETE SCREW ANCHORS INCLUDE:
 a. DEWALT "POWER-STUD+ SD1" (ICC-ES ESR-2966)
 b. DEWALT "SCREW-BOLT+" (ICC-ES ESR-4042)
 c. HILTI KWIK BOLT-TZ2 EXPANSION ANCHOR PER ICC-ES ESR-4561
 d. HILTI KWIK BOLT-1 EXPANSION ANCHOR PER IAPMO UES ER-677
 e. HILTI KH-EZ, KH-EZ CRC, KH-EZ SS316, KH-EZ C, AND KH-EZ P SCREW ANCHORS PER ICC-ES ESR-3056
 f. SIMPSON STRONG-TIE "STRONG-BOLT 2" (IAPMO UES ER-240)
 g. SIMPSON STRONG-TIE "TITEN-HD" (ICC-ES ESR-1056)
2. ADHESIVE ANCHORS FOR USE IN SOLID-GROUTED CONCRETE MASONRY SHALL HAVE BEEN TESTED AND QUALIFIED FOR USE IN ACCORDANCE WITH ICC-ES AC58. PRE-APPROVED ADHESIVE ANCHORS INCLUDE:
 a. DEWALT AC100+ GOLD (ICC-ES ISR-3200)
 b. HILTI HIT-HY 270 SAFE SET SYSTEM WITH HILTI HOLLOW DRILL BIT AND VACUUM PER ICC-ES ESR-4143
 c. HILTI HIT-HY 200 V3 SAFE SET SYSTEM WITH HILTI HOLLOW DRILL BIT AND VACUUM PER ICC ESR-4878
 d. SIMPSON STRONG-TIE "SET-XP" (IAPMO UES ER-265)
 e. SIMPSON STRONG-TIE "AT-XP" (IAPMO UES ER-281)
 f. SIMPSON STRONG-TIE "ET-HP" (IAPMO UES ER-241)

B. ANCHORAGE TO HOLLOW CONCRETE MASONRY / UNREINFORCED CLAY BRICK MASONRY
1. SCREW ANCHORS FOR USE IN HOLLOW CONCRETE MASONRY SHALL HAVE BEEN TESTED AND QUALIFIED IN ACCORDANCE WITH ICC-ES AC106. PRE-APPROVED SCREW ANCHORS INCLUDE:
 a. SIMPSON STRONG-TIE "TITEN-HD" (ICC-ES ESR-1056)
2. ADHESIVE ANCHORS WITH SCREEN TUBES FOR USE IN HOLLOW CONCRETE MASONRY / UNREINFORCED CLAY BRICK MASONRY SHALL BE TESTED AND QUALIFIED IN ACCORDANCE WITH ICC-ES AC58 OR AC60, AS APPROPRIATE. THE APPROPRIATE SCREEN TUBE SHALL BE USED AS RECOMMENDED BY THE ADHESIVE MANUFACTURER. PRE-APPROVED ADHESIVE ANCHORS WITH SCREEN TUBES INCLUDE:
 a. DEWALT AC100+ GOLD (ICC-ES ISR-3200) - HOLLOW CONCRETE MASONRY
 b. DEWALT AC100+ GOLD (ICC-ES ISR-4105) - CLAY BRICK MASONRY
 c. HILTI HY 270 ADHESIVE ANCHOR (ICC-ES ESR-4143)
 d. SIMPSON STRONG-TIE "SET-XP" (IAPMO UES ER-265)
 e. SIMPSON STRONG-TIE "ACRYLIC-TIE" (ICC-ES ER-5791)

PIA5 POWDER-ACTUATED FASTENERS (PAF) SHALL BE BY SIMPSON STRONG-TIE (ICC-ES ESR-2138), HILTI (ICC-ES ESR-1663 AND ESR-2269), DEWALT "POWER DRIVEN FASTENERS" (ICC-ES ESR-2024) OR ENGINEER- APPROVED EQUAL.

PIA6 GAS-ACTUATED FASTENERS (GAF) SHALL BE BY SIMPSON STRONG-TIE (ICC-ES ESR-2811), HILTI (ICC-ES ESR-1752), DEWALT "TRAK-IT C5 FASTENERS" (ICC-ES ESR-3275) OR ENGINEER-APPROVED EQUAL.

PIA7 CORDLESS DIRECT FASTENERS (CDF) SHALL BE BY DEWALT (ICC-ES ESR-4076) OR ENGINEER-APPROVED EQUAL.

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PROJECT
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Douglas Ave
Altamonte Springs, Florida

REVISION DATES

DATE
8-30-24

SHEET TITLE
STRUCTURAL GENERAL NOTES

SHEET NUMBER
S01

PROJECT NO.
012-24

MASONRY

M1 MASONRY CONSTRUCTION MATERIALS AND INSPECTIONS SHALL CONFORM TO THE LATEST EDITION OF THE ACI BUILDING CODE REQUIREMENTS FOR CONCRETE MASONRY STRUCTURES (TMS 402-2016), SPECIFICATIONS FOR MASONRY STRUCTURES (TMS 602-2016) ASTM C476-19, ASTM C1019-20 AND NCMA TEK 107.

M2 CONCRETE BLOCKS SHALL CONFORM TO ASTM C-90. (f'm = 2000 PSI) (2000 PSI ON THE NET AREA).

M3 MORTAR SHALL COMPLY WITH ASTM C270, TYPE 'M' FOR RETAINING WALLS AND WALLS BELOW GRADE, TYPE 'S' FOR TYPICAL WALLS. (COMPRESSIVE STRENGTH = 2500 PSI AND 1800 PSI, RESPECTIVELY. SITE TESTED MORTAR CUBES SHALL ACHIEVE A MINIMUM OF 80% OF THE DESIGN COMPRESSIVE STRENGTH)

M4 BLOCK SHALL NOT BE MOISTENED BEFORE GROUTING.

M5 ALL MASONRY CROSS WEBS SHALL BE FULLY BEDDED IN MORTAR AROUND CELLS TO BE GROUTED.

M6 REINFORCE WALLS WITH LADDER TYPE (ASTM A-153, #9 GAGE WIRE) DEFORMED REINFORCEMENT EQUAL TO DUR-O-WAL IN BED JOINTS AT 16" OC UNO, MEASURED VERTICALLY. PLACE PER MFR'S INSTRUCTIONS. LAP ALL HORIZONTAL JOINT REINFORCING 6" MIN.

M7 VERTICAL REINFORCING MUST HAVE A MINIMUM CLEARANCE OF 1/2" TO INSIDE FACE. VERTICAL REINFORCEMENT IN WALLS SHALL BE SECURED AND LATERALLY SUPPORTED AGAINST DISPLACEMENT AT INTERVALS NOT EXCEEDING 192 x (BAR DIAMETER) OR 10 FT (WHICHEVER IS LESS) WHENEVER A CLEANOUT IS REQUIRED. SEE GROUTING DETAIL NOTE FOR CLEANOUT REQUIREMENTS.

M8 ANY MASONRY THAT IS BELOW GRADE SHALL BE FULLY GROUTED UP TO FINISHED FLOOR.

M9 GROUT PLACEMENT STOPPED FOR (1) HOUR OR MORE SHOULD BE STOPPED 1 1/2" BELOW THE TOP OF THE MASONRY UNIT TO PROVIDE A KEY FOR SUBSEQUENT GROUTING.

M10 TYPICAL VERTICAL REINFORCING SIZE AND SPACING SHALL BE ABOVE AND BELOW ALL WALL OPENINGS.

M11 TEMPORARY BRACING AND SHORING OF WALLS TO PROVIDE STABILITY DURING CONSTRUCTION SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.

M12 REINFORCE MASONRY OPENINGS LESS THAN 2'-0" WIDE, WITH HORIZ JOINT REINF PLACED IN (2) HORIZ JOINTS APPROXIMATELY 8" APART, IMMEDIATELY ABOVE THE GROUT FILLED LINTEL AND IMMEDIATELY BELOW THE GROUT FILLED SILL. EXTEND REINFORCING A MINIMUM OF 2'-0" BEYOND JAMBS OF THE OPENING EXCEPT AT CONTROL JOINTS.

M13 PROVIDE FILLED PRECAST U-LINTELS AS MANUFACTURED BY CAST-CRETE OR APPROVED EQUAL WITH (2) #5 CONT AT ALL OPENINGS WHERE BEAMS ARE NOT SHOWN, SCHEDULED OR NOTED 2'-0" WIDE AND GREATER. LINTELS SHALL HAVE MINIMUM UNFILLED CAPACITY OF 400 lb/LF AND BEAR NOMINAL 8" (MIN 8") EACH END ON A GROUT FILLED CELL. PROVIDE PRE-CAST LINTEL MFR'S STANDARD TABULATED LOAD TABLES AS EVIDENCE THAT THE MINIMUM CAPACITIES AS LISTED IN THE BEAM SCHEDULE ARE SATISFIED. REFER TO MASONRY WALL BEAM SCHEDULE FOR TYPICAL PRECAST LINTEL SPANS AND DETAILS.

M14 STOPPING AND RESUMING WORK: RACK BACK 1/2-UNIT LENGTH IN EACH COURSE. DO NOT TOOTH. CLEAN EXPOSED SURFACES OF SET MASONRY. REMOVE LOOSE MASONRY UNITS AND MORTAR PRIOR TO LAYING FRESH MASONRY.

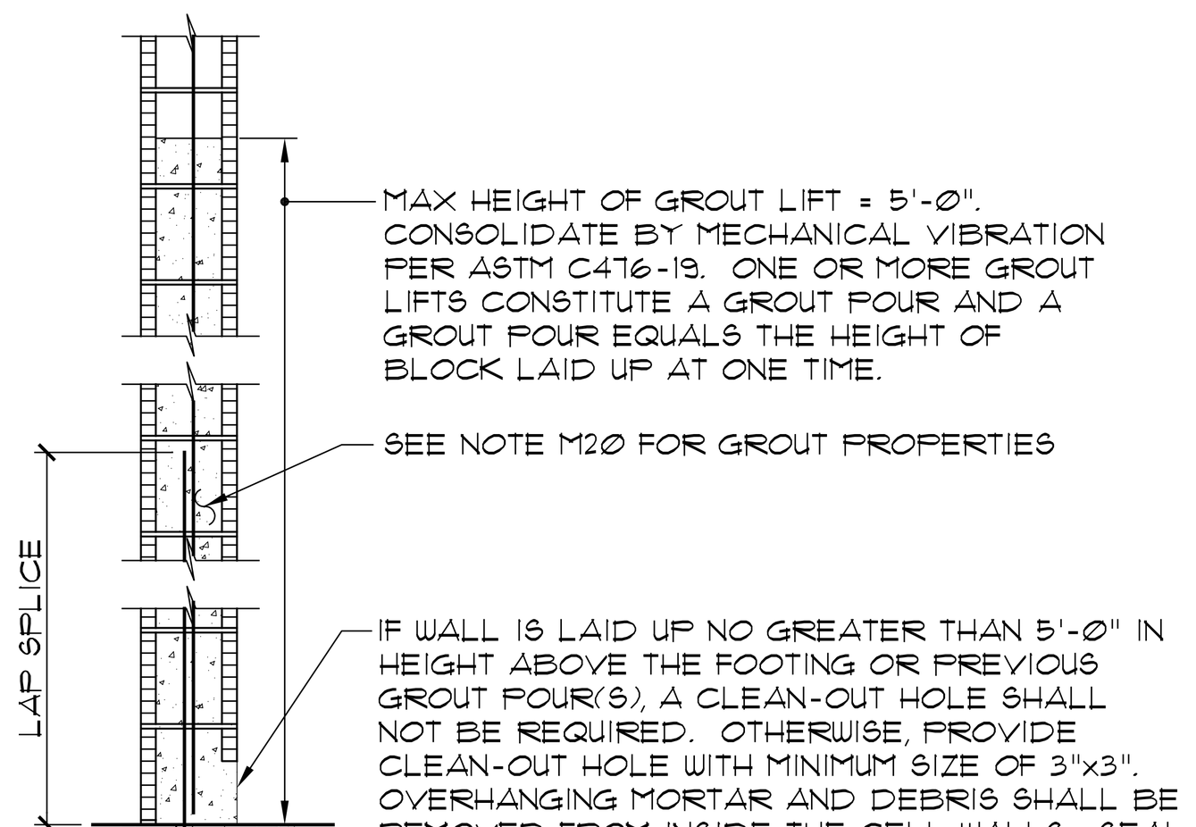
M15 DO NOT APPLY UNIFORM LOADS TO MASONRY WALLS FOR (3) DAYS.

M16 DO NOT APPLY CONCENTRATED LOADS TO MASONRY WALLS FOR (7) DAYS.

M17 EXTEND ALL VERTICAL WALL REINFORCEMENT TO WITHIN 2" OF TOP OF WALL OR BEAM UNLESS NOTED OTHERWISE. TERMINATE REINFORCING WITH STANDARD ACI 90 DEGREE HOOK IF ROOF JOISTS AND/OR TRUSSES BEAR ON TOP OF WALL AND THERE IS NO PARAPET. IF PARAPET EXISTS, HOOK IS NOT REQUIRED.

M18 REFER TO ARCHITECTURAL DRAWINGS FOR WATERPROOFING DETAILS AT MASONRY CONTROL JOINTS.

M19 GROUT FOR FILLED CELLS SHALL BE PLACED IN CONFORMANCE WITH ASTM C476-19 AND AS INDICATED BELOW:

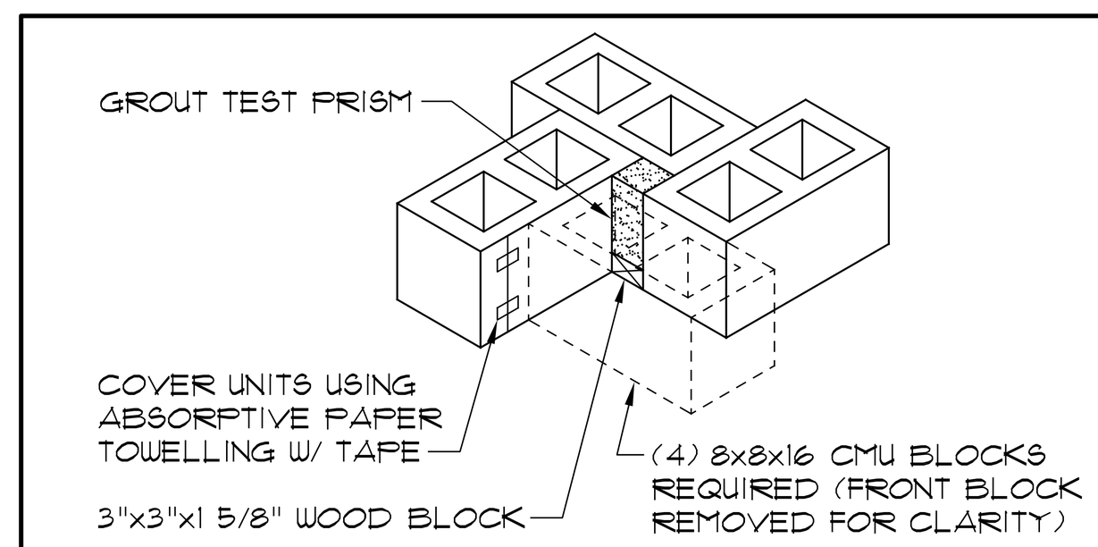


NOTES:

1. BUTTER AROUND ALL CELLS THAT ARE TO BE FILLED WITH GROUT TO ENSURE GROUT DOES NOT LEAK OUT.
2. DO NOT GROUT UNTIL MORTAR HAS SET SUFFICIENTLY TO WITHSTAND THE PRESSURE OF THE GROUT. WAIT NOT LESS THAN 24 HOURS.
3. PLACE GROUT WITHIN 90 MINUTES FROM INTRODUCING WATER IN THE MIXTURE AND PRIOR TO INITIAL SET.
4. MAXIMUM WALL HEIGHT FROM TOP OF FOOTING OR PREVIOUS GROUT POURS LAID UP AT ONE TIME SHALL BE 4'-0".
5. THE MINIMUM CONTINUOUS UNOBSTRUCTED CLEAR AREA IN CELL TO RECEIVE GROUT MUST BE NOT LESS THAN 3"x3". MORTAR FINS MUST BE REMOVED AS BLOCK PLACEMENT PROCEEDS. MORTAR DROPPINGS MUST BE KEPT OUT OF CELLS WHICH ARE TO BE GROUTED.

GROUTING DETAIL

M20 JOB SITE MIXING OF GROUT SHALL NOT BE PERMITTED. TESTING SHALL CONFORM TO ASTM C1019. SEE TEST MOLD DETAIL BELOW. SEE SCHEDULE BELOW FOR COMPRESSIVE STRENGTH AND SLUMP REQUIREMENTS.



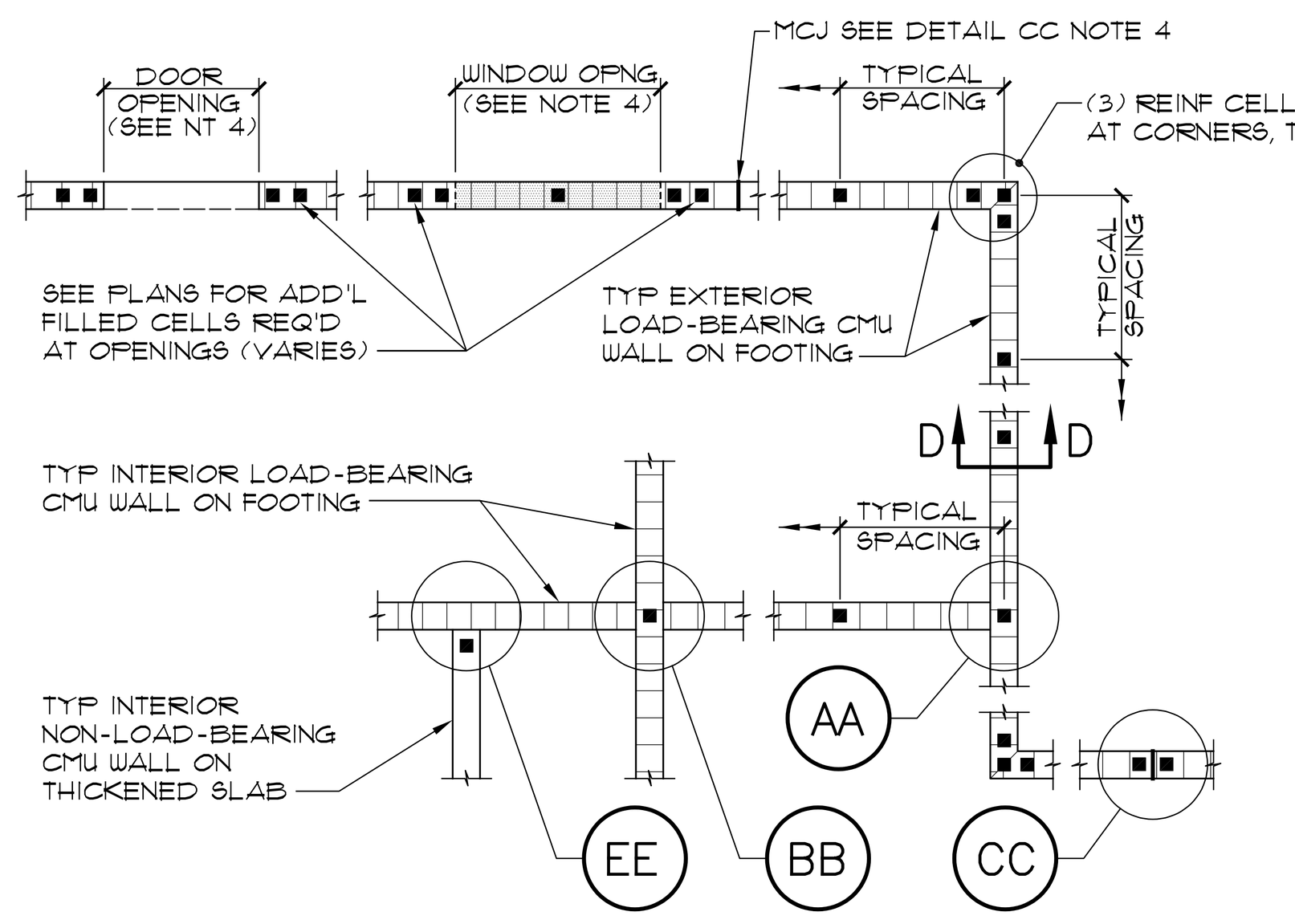
DETAIL – MASONRY GROUT TEST MOLD (ASTM C-1019)

MASONRY GROUT SHALL HAVE THE FOLLOWING PROPERTIES:

LOCATION	28 DAY STRENGTH	SLUMP	COARSE AGGREGATE
FILLED CELL, PRECAST LINTELS & BOND BEAMS	2500 PSI	8" TO 11"	3/8"
HOLLOW METAL FRAMES, 4" PARTITION BLOCK	2500 PSI	8" TO 11"	NONE

NOTES:
1. ALL MASONRY GROUT SHALL CONFORM TO ASTM C 476.
2. COURSE AGGREGATES SHALL CONFORM TO ASTM C 404.
3. DO NOT TEST GROUT USING CYLINDERS AS THIS IS CONTRARY TO ASTM C476-19 AND IS STRICTLY PROHIBITED.

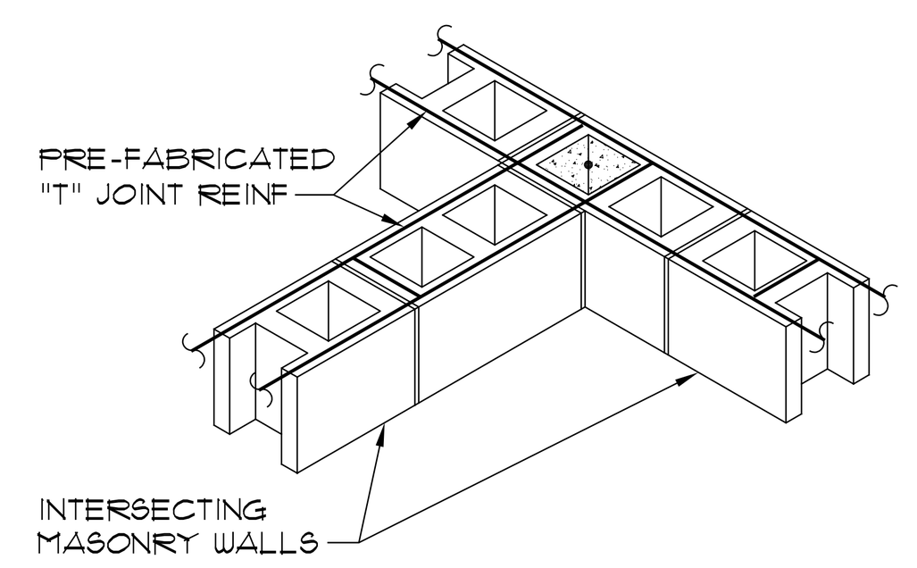
M21 TYPICAL MASONRY DETAILS:



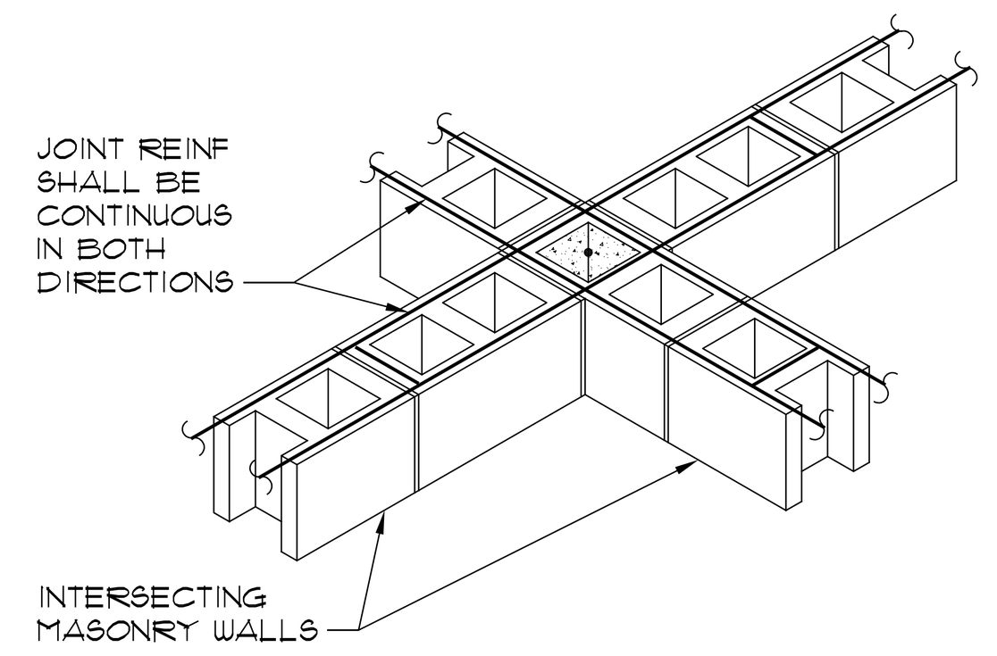
NOTES:

1. SEE DETAIL "CC" FOR LOCATING MASONRY CONTROL JOINTS. CONTRACTOR SHALL SUBMIT MCJ PLAN TO ARCHITECT FOR APPROVAL.
2. SEE ARCHITECTURAL DRAWINGS FOR OPENING SIZES AND LOCATIONS.
3. SEE FDN PLAN NOTES FOR REINFORCED FILLED CELL SIZE & SPACING.
4. MULTIPLE FILLED CELLS MAY BE REQUIRED AT JAMBS. ADDITIONAL BARS WILL BE SHOWN ON PLAN(S). IF NONE ARE SHOWN, THEN A SINGLE TYPICAL REINFORCED JAMB CELL IS SUFFICIENT.
5. SEE MASONRY NOTES ON GENERAL NOTE SHEETS FOR HORIZONTAL JOINT REINFORCING AND OTHER ADDITIONAL INFORMATION.

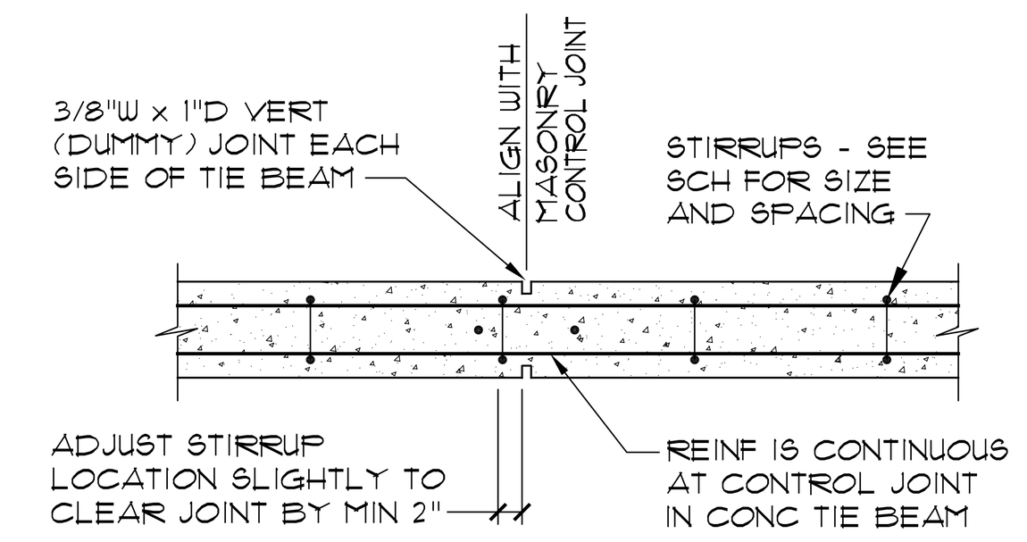
ILLUSTRATIVE PLAN OF VARIOUS CMU WALL CONDITIONS NTS



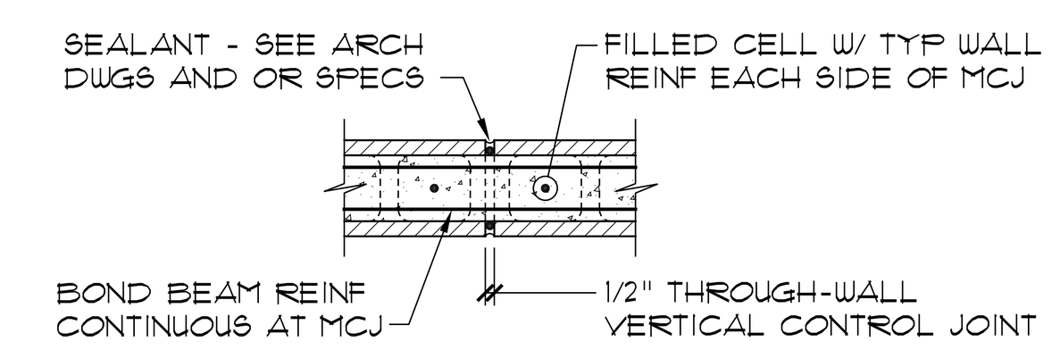
AA WALL INTERSECTION



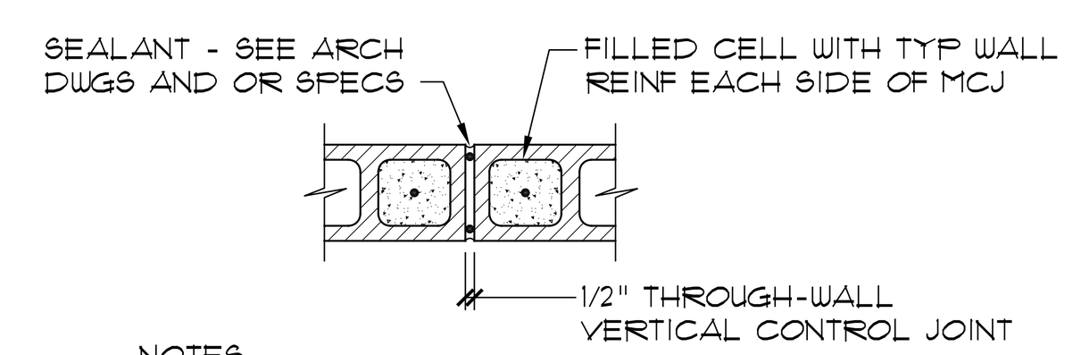
BB WALL INTERSECTION



MCJ @ TIE BEAM

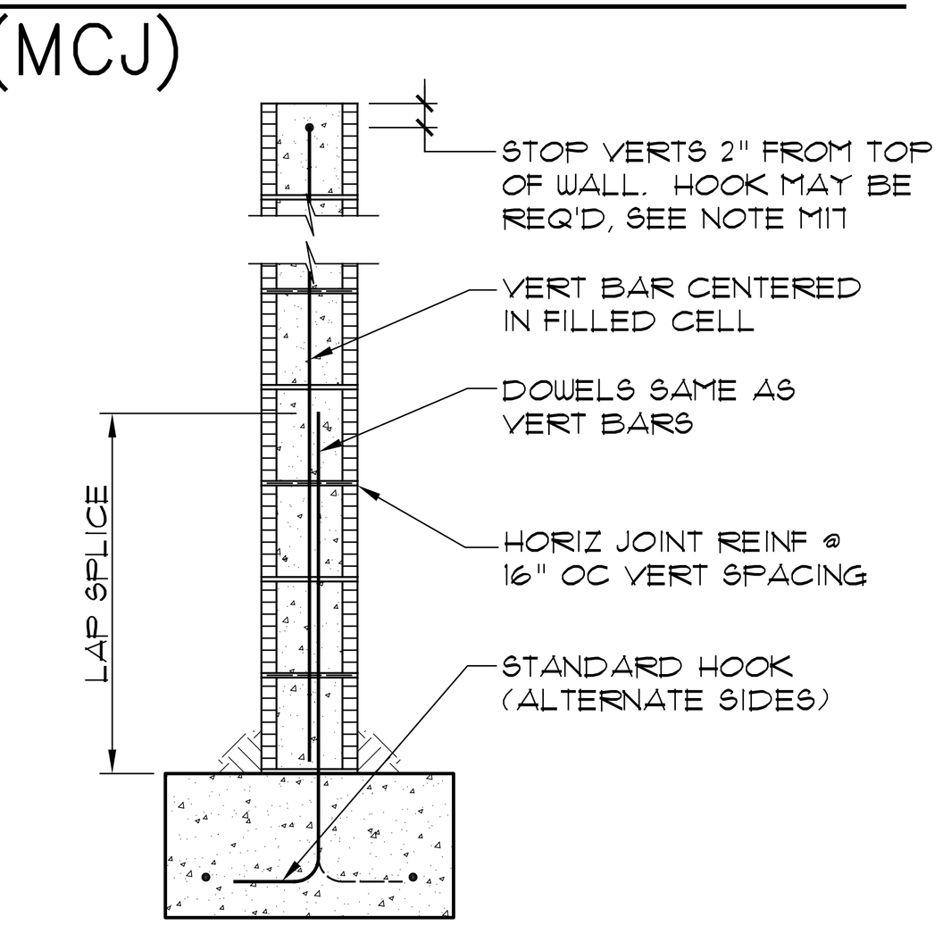


MCJ @ BOND BEAM

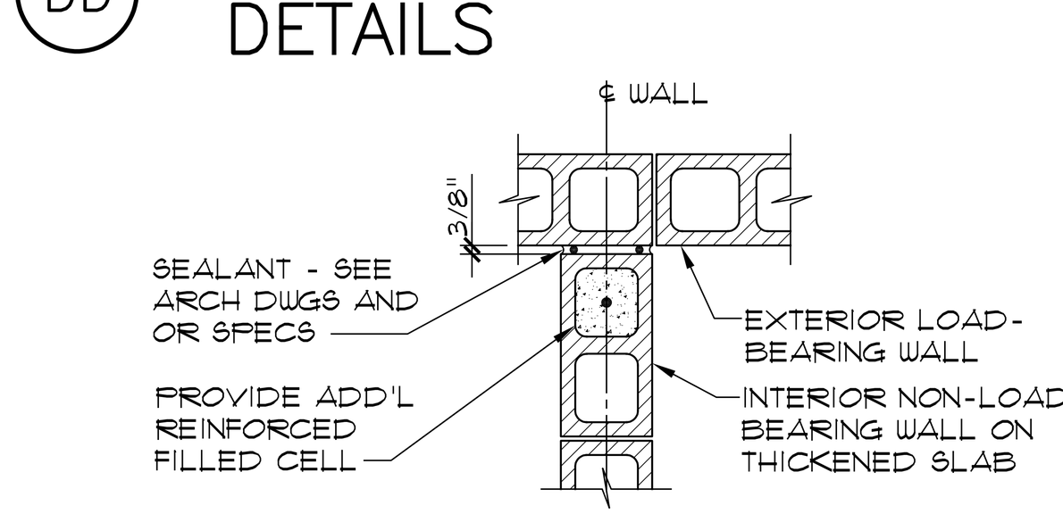


NOTES:
1. THROUGH-WALL JOINT SHALL BE CONTINUOUS WITHOUT INTERRUPTION FROM FOUNDATION TO TOP OF WALL.
2. TERMINATE TYPICAL HORIZONTAL JOINT REINFORCING 2" FROM JOINT.
3. MAXIMUM SPACING OF CONTROL JOINTS SHALL BE 1 1/2 x (WALL HEIGHT) OR 25'-0", WHICHEVER IS LESS.
4. MASONRY CONTROL JOINTS IN CMU WALLS SHALL NOT BE LOCATED WITHIN 16" OF ANY JAMB.

CC MAS CONTROL JOINT (MCJ)



DD TYPICAL FILLED CELL DETAILS



EE INTERSECTION OF LOAD-BRG & NON-LOAD-BRG WALLS

M22 MINIMUM LAP SPLICES FOR REINFORCED CMU PER EIGHTH EDITION (2023) FBC FOR LRFD DESIGNS.

CMU WALLS WITH CENTERED VERTICAL REINFORCING						
#4	#5	#6	#7	#8	#9 (NOTE 1)	#10 (NOTE 2)
15"	23"	35"	48"	72"	82"	☒

CMU WALLS WITH EACH FACE VERTICAL REINFORCING						
#4	#5	#6	#7	#8	#9 (NOTE 1)	#10 (NOTE 2)
23"	36"	54"	63"	72"	82"	☒

NOTES:
1. #9 BARS ARE NOT ALLOWED IN 8" CMU BUT ACCEPTABLE FOR 10" AND 12" CMU. MAXIMUM BAR DIAMETER SHALL NOT EXCEED ONE-EIGHTH OF THE NOMINAL WALL THICKNESS.
2. #10 BARS SHALL BE SPLICED USING MECHANICAL CONNECTORS AND SHALL ONLY BE ALLOWED IN 12" CMU.
3. EPOXY COATED BARS SHALL NOT BE USED.

STRUCTURAL STEEL

SS1 A CERTIFIED TESTING AGENCY SHALL BE ENGAGED TO PERFORM INDUSTRY STANDARD INSPECTIONS TO ENSURE CONFORMANCE WITH PLANS AND SPECIFICATIONS (IF PROVIDED). SUBMIT REPORTS TO ARCHITECT AND ENGINEER.

SS2 FABRICATE AND ERECT STRUCTURAL STEEL IN CONFORMANCE WITH THE LATEST VERSION OF AISC 360-16.

SS3 MATERIAL SPECIFICATIONS:

ALL STEEL SHALL BE PRODUCED DOMESTICALLY.

ROLLED SHAPES, PLATES AND BARS: ASTM A572 GR 50, EXCEPT WIDE-FLANGE & WT SECTIONS, WHICH SHALL BE ASTM A992.

HOLLOW STRUCTURAL SECTION (HSS): ASTM A500, GRADE C.

ANCHOR BOLTS, RODS, NUTS AND WASHERS: PER BASE PLATE SCHEDULE.

HEADED STUDS: ASTM A108, GRADE 1015 THROUGH 1020, COLD-FINISHED CARBON STEEL, AWS D1.1, TYPE B.

BOLTED STRUCTURAL CONNECTIONS: UNLESS NOTED OTHERWISE, ALL BOLTS SHALL BE 3/4"⌀ ASTM A325, TYPE N. BOLTS INDICATED LESS THAN 5/8"⌀ SHALL BE ASTM A307.

WELDED CONNECTIONS: ELECTRODES - E70XX UNO (LOW HYDROGEN). FILLET WELDS SHALL BE 3/16" UNO.

SS4 HIGH-STRENGTH FIELD-BOLTED CONNECTIONS SHALL BE INSTALLED, TIGHTENED, TESTED AND INSPECTED ACCORDING TO "SPECIFICATION FOR STRUCTURAL JOINTS USING ASTM A325 OR A490 BOLTS" BY THE RESEARCH COUNCIL ON STRUCTURAL CONNECTIONS (RCSC). ALL BOLTS IN STEEL TO STEEL CONNECTIONS SHALL BE BROUGHT TO A "SNUG-TIGHT" CONDITION, AS DEFINED IN THE SPECIFICATION. ALL BOLTS IN STEEL TO EMBED CONNECTIONS SHALL BE FINGER-TIGHT WITH PEENED THREADS. SLIP-CRITICAL (SC) BOLTS MUST BE FULLY TENSIONED PER SPECIFICATION.

SS5 STANDARD SHEAR CONNECTIONS HAVE BEEN DESIGNED AND THE NECESSARY INFORMATION MAY BE FOUND IN THE SCHEDULES. THE ULTIMATE (i.e. FACTORED) REACTIONS HAVE BEEN PROVIDED AT EACH END OF EACH MEMBER SHOULD THE FABRICATOR WISH TO RE-ENGINEER THE CONNECTIONS TO THEIR PREFERENCES. SHOULD THE FABRICATOR WISH TO RE-ENGINEER THE CONNECTIONS, THEY MUST PROVIDE SUBMITTALS AND CALCULATIONS THAT HAVE BEEN PREPARED AND SIGNED AND SEALED BY A PROFESSIONAL ENGINEER LICENSED IN THE SAME STATE AS THE PROJECT LOCATION.

SS6 ALL WIDE FLANGE ROOF MEMBERS SHALL BE CONNECTED TO THE SUPPORTING STRUCTURE AS DETAILED IN THE CONNECTION SCHEDULES ON SHEET S4. UNLESS SPECIFICALLY NOTED OTHERWISE ON PLAN, ALL ROOF MEMBERS SHALL BE CONNECTED AS DETAILED IN THE SINGLE SHEAR SCHEDULES B/S4 AND E/S4.

SS7 BRACE AND MAINTAIN ALL STEEL IN ALIGNMENT UNTIL OTHER PARTS OF CONSTRUCTION NECESSARY FOR PERMANENT SUPPORT ARE COMPLETED. CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING TEMPORARY SHORING AS REQUIRED FOR THE STABILITY OF THE STEEL FRAME UNTIL ALL STRUCTURAL ELEMENTS HAVE BEEN COMPLETED AND BUILDING IS ENCLOSED.

SS8 ALL WELDING SHALL CONFORM TO THE REQUIREMENTS OF "THE STANDARD CODE FOR WELDING IN BUILDING CONSTRUCTION" OF THE AMERICAN WELDING SOCIETY.

SS9 GROUT FOR COLUMN BASE PLATES AND PRESET BEARING PLATES SHALL BE NON-SHRINK, NON-METALLIC GROUT (5000 PSI MIN).

SS10 SUBMIT SHOP DRAWINGS INDICATING ALL SHOP AND ERECTION DETAILS INCLUDING PROFILES, SIZES, SPACING AND LOCATIONS OF STRUCTURAL MEMBERS, CONNECTION ATTACHMENTS, FASTENERS, LOADS AND TOLERANCES.

SS11 ALL STEEL EXPOSED TO WEATHER SHALL BE HOT DIP GALVANIZED IN ACCORDANCE WITH ASTM A123 FOR MEMBERS AND ASTM A153 FOR CONNECTION ELEMENTS, EXCEPT THAT ALL ARCHITECTURALLY EXPOSED STRUCTURAL STEEL (AESS) SHALL BE BLAST CLEANED AND COATED IN ACCORDANCE WITH THE STRUCTURAL STEEL AND PAINT SPECIFICATIONS.

SS12 STRUCTURAL STEEL SHALL RECEIVE A SHOP COAT OF PRIMER (COLOR AS DIRECTED BY ARCHITECT) EXCEPT THOSE AREAS WHICH WILL RECEIVE SPRAY-ON FIRE PROTECTION, OR WHERE HEADED STUDS ARE TO BE WELDED.

SS13 STEEL BEAMS SHALL BE CAMBERED AS INDICATED ON THE FRAMING PLAN(S). IF NO CAMBER IS SPECIFIED, THE FABRICATOR SHALL ENSURE THAT THE "NATURAL" CAMBER IN ALL ERECTED BEAMS OCCURS IN AN UPWARD DIRECTION.

SS14 ALL STEEL BEAMS THAT ARE PARALLEL TO BAR JOISTS SHALL BE CAMBERED TO MATCH THE JOIST CAMBER AND THE TOP OF THE BEAM SHALL MATCH THE TOP OF THE JOIST, TYP UNO.

SS15 THE STRUCTURAL STEEL SHALL BE FABRICATED AND ERECTED IN FULL CONFORMANCE WITH THE "OSHA STEEL ERECTION STANDARD". IF THE CONSTRUCTION DRAWINGS DEVIATE FROM THE OSHA STANDARD THEN THE FABRICATOR SHALL PROVIDE SUBMITTALS THAT CLEARLY INDICATE THE DEVIATION WITH A REVISION CLOUD AND REQUEST APPROVAL FROM BBM TO MAKE THE CHANGE SO THAT CONFORMANCE WITH THE OSHA STANDARD IS ASSURED.

STEEL ROOF DECK

RD1 SEE ROOF FRAMING PLAN(S) FOR STEEL DECK ATTACHMENT TO STRUCTURE.

RD2 STEEL ROOF DECK UNITS SHALL BE FABRICATED FROM STEEL CONFORMING TO SECTION A3 OF THE LATEST EDITION OF THE AMERICAN IRON AND STEEL INSTITUTE, SPECIFICATIONS FOR THE DESIGN OF COLD FORMED STEEL STRUCTURAL MEMBERS. THE STEEL USED SHALL BE GRADE 80.

RD3 IF OPTED BY GC, ALL FIELD WELDING OF DECK SHALL BE IN STRICT CONFORMANCE WITH ANSI/AWS D1.3 STRUCTURAL WELDING CODE.

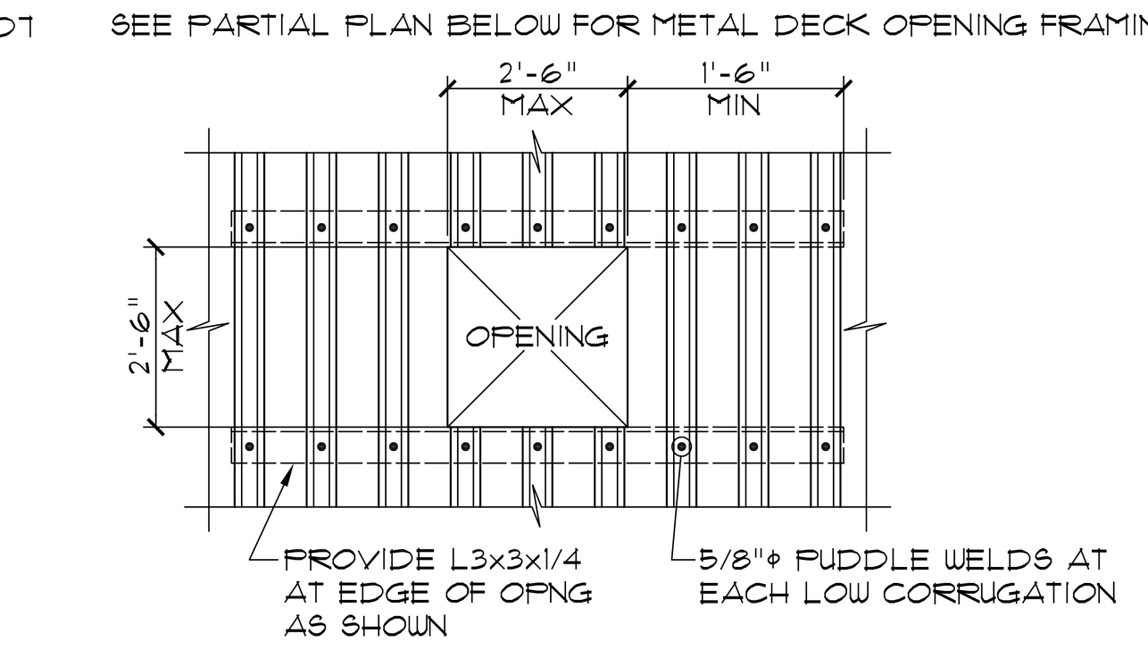
RD4 ALL SCREWS SHALL COMPLY WITH ASTM 1513, ICC AC43, AND ICC AC118. FASTENERS SHALL BE INSTALLED PERPENDICULAR TO ELEMENT SO AS TO PROPERLY SEAT FASTENER HEAD, AND TORQUED PER MANUFACTURES SPECIFICATIONS, NOT TO EXCEED MAXIMUM RECOMMENDED TORQUE.

RD5 GALVANIZING SHALL CONFORM TO ASTM-A653, STRUCTURAL QUALITY AND FEDERAL SPEC. QQ-S-775.

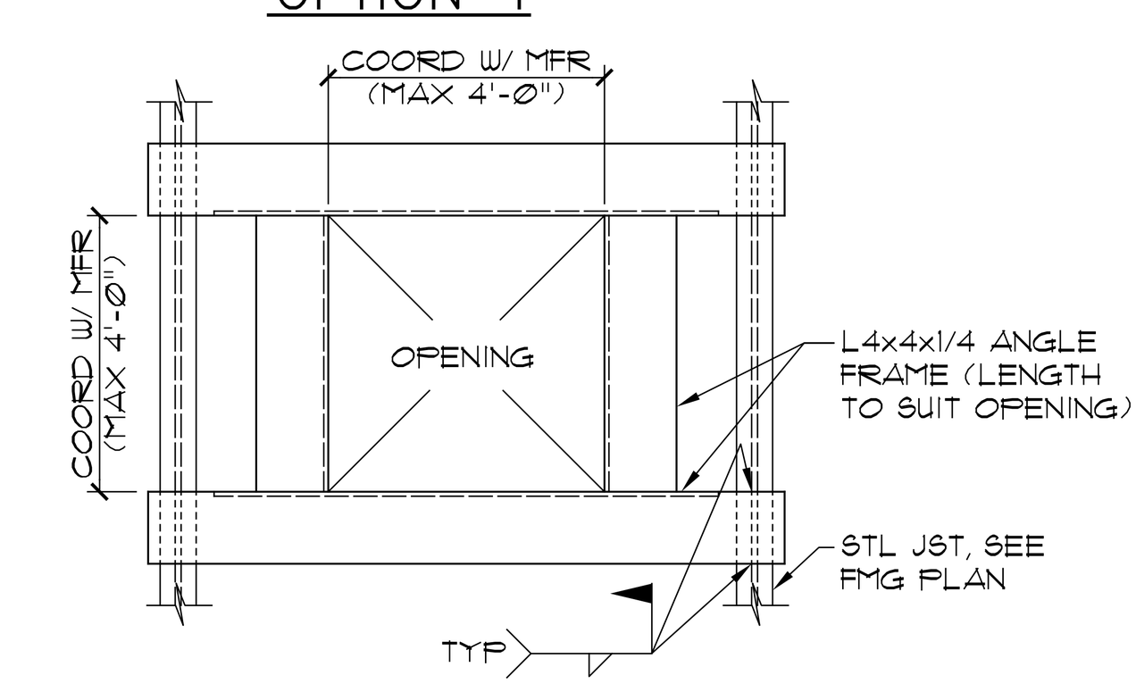
RD6 SEE CHART BELOW FOR MINIMUM SECTION PROPERTIES REQUIRED FOR STEEL DECK. PROPERTIES SHOWN ARE REPRODUCED FROM THE VULCRAFT MANUAL.

ROOF DECK					
DECK TYPE	DESIGN THICK	Ip in^4/ft	Sp in^3/ft	In in^4/ft	Sn in^3/ft
B22	0.0295	0.155	0.186	0.183	0.192
B20	0.0358	0.201	0.234	0.222	0.247
B18	0.0474	0.289	0.318	0.295	0.327

RD7 SEE PARTIAL PLAN BELOW FOR METAL DECK OPENING FRAMING:



OPTION 1



OPTION 2

NOTES:
A. FOR OPENINGS WITH A MAXIMUM DIMENSION OF 6" TO 1'-0", REINFORCE OPENING WITH A 20ga GALV FLAT PLATE 1'-0" LARGER THAN THE OPENING. ATTACH WITH 1" WELDS AT EACH RIB ALL AROUND.
B. FOR OPENINGS WITH A MAX DIMENSION OF 1'-0" TO 2'-6", SEE DETAIL OPTION 1 ABOVE.
C. FOR OPENINGS WITH A MAX DIMENSION OF 4'-0", SEE DETAIL OPTION 2 ABOVE.

RD8 NO ITEMS SHALL BE HUNG DIRECTLY FROM THE ROOF DECK UNLESS INDICATED OTHERWISE IN THE DRAWINGS.

RD9 PROVIDE METAL CLOSURE STRIPS AT OPEN UNCOVERED ENDS AND EDGES OF ROOF DECKING AND IN VOIDS BETWEEN DECKING AND OTHER CONSTRUCTION. WELD INTO POSITION TO PROVIDE A COMPLETE ENCLOSED DECKING INSTALLATION. PROVIDE FLEXIBLE CLOSURE STRIPS INSTEAD OF METAL CLOSURES, AT CONTRACTOR'S OPTION, WHEREVER THEIR USE WILL ENSURE COMPLETE CLOSURE. INSTALL WITH ADHESIVE IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.

STEEL JOISTS

SJ1 A CERTIFIED TESTING AGENCY SHALL BE ENGAGED TO PERFORM INDUSTRY STANDARD INSPECTIONS TO ENSURE CONFORMANCE WITH PLANS AND SPECIFICATIONS (IF PROVIDED). SUBMIT REPORTS TO ARCHITECT AND ENGINEER.

SJ2 ALL DESIGN, FABRICATION AND ERECTION OF STEEL JOISTS AND BRIDGING SHALL BE IN STRICT ACCORDANCE WITH THE SPECIFICATIONS OF STEEL JOIST INSTITUTE (OPEN WEB STEEL JOIST AND JOIST GIRDERS SJI PUBLICATION SJI 100-2015) AND RECOMMENDED CODE OF STANDARD PRACTICE.

SJ3 THE ENDS OF ALL BRIDGING LINES TERMINATING AT WALLS OR BEAMS SHALL BE ANCHORED TO THE WALL OR BEAM.

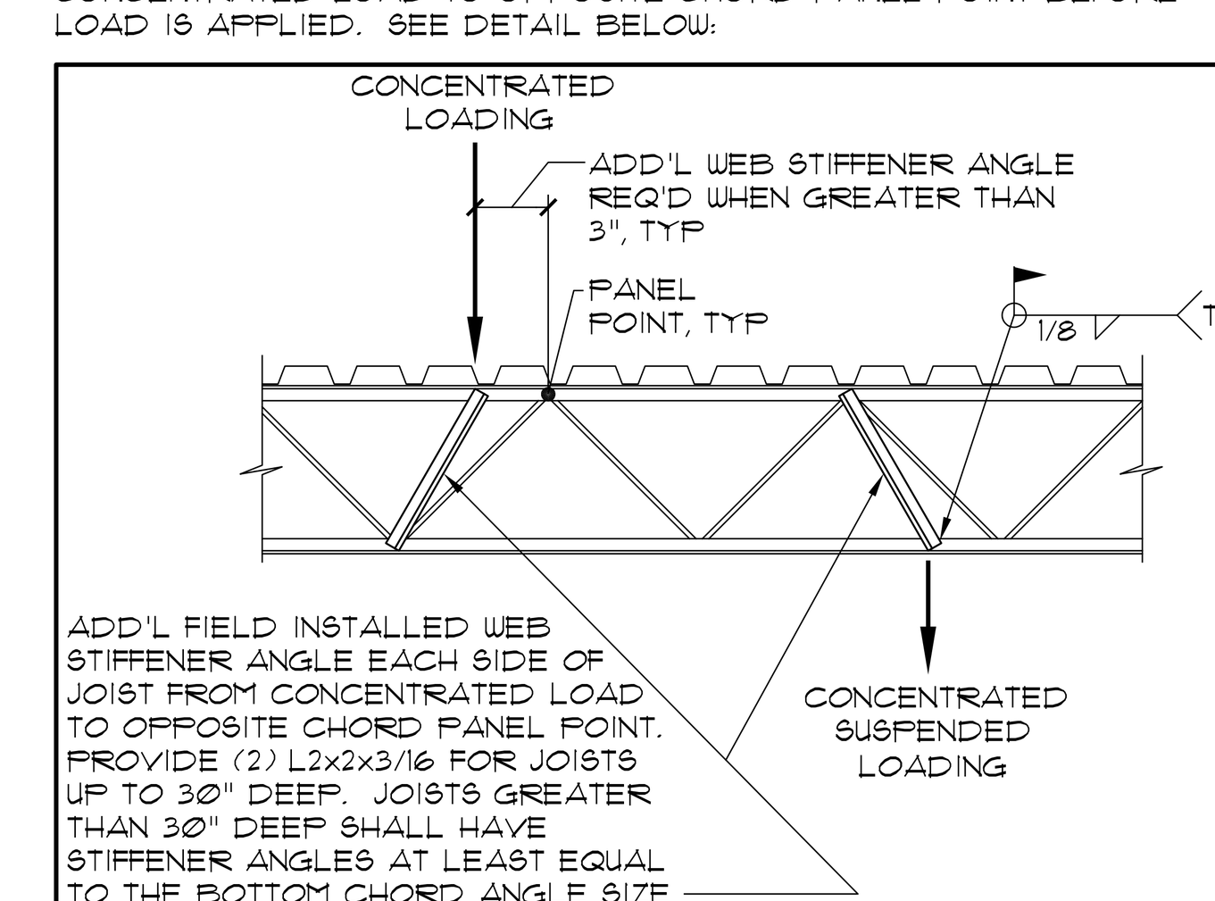
SJ4 ALL STEEL JOISTS ARE TO BE CAMBERED AS SPECIFIED BY STEEL JOIST INSTITUTE.

SJ5 PROVIDE BOTTOM AND/OR TOP CHORD EXTENSIONS AS SHOWN ON DRAWINGS.

SJ6 UNLESS NOTED OTHERWISE, MINIMUM JOIST BEARING SHALL BE 2 1/2" FOR K-SERIES JOISTS, 4" FOR LH, DLH AND SLH 15-18, AND 6" FOR SLH 19-25 ON A STEEL MEMBER OR EMBED PLATE.

SJ7 BRIDGING SHALL BE FURNISHED AND INSTALLED TO MEET THE SIZE AND SPACING REQUIREMENTS OF THE SJI STANDARD SPECIFICATIONS FOR OPEN WEB STEEL JOISTS. ALL BRIDGING AND BRIDGING ANCHORS SHALL BE COMPLETELY INSTALLED BEFORE CONSTRUCTION LOADS ARE PLACED ON THE JOISTS.

SJ8 ALL HANGERS, CURBS AND/OR ROOFTOP FRAMES TO SUPPORT MECHANICAL EQUIPMENT, ETC., TO BE SUPPORTED BY THE JOISTS SHALL BE LOCATED AT THE PANEL POINTS OF THE JOISTS IF POSSIBLE. HOWEVER, IF THE CONCENTRATED LOAD MUST BE LOCATED FURTHER THAN 3" FROM A PANEL POINT, PROVIDE WEB STIFFENER ANGLES. WEB STIFFENERS MUST BE INSTALLED EACH SIDE OF JOIST FROM CONCENTRATED LOAD TO OPPOSITE CHORD PANEL POINT BEFORE LOAD IS APPLIED. SEE DETAIL BELOW:



DETAIL AT CONCENTRATED LOADS

SJ9 CONTRACTOR TO FURNISH BAR JOIST CERTIFICATIONS SIGNED AND SEALED BY AN ENGINEER REGISTERED IN THE SAME STATE AS THE PROJECT LOCATION. THE SPECIALTY ENGINEER FOR THE STEEL JOIST SUPPLIER SHALL ALSO CERTIFY THAT THE STEEL JOIST BOTTOM CHORDS WILL SAFELY RESIST THE WIND UPLIFTS, CONSIDERING THE SPACING OF BRIDGING.

SJ10 PROVIDE UPLIFT BRIDGING PER TABULATED PRESSURES ON SHEET S03.

SJ11 ALL ITEMS SUSPENDED FROM JOISTS (I.E. CATWALKS, BALCONIES, OPERABLE PARTITIONS, HOODS, ETC.) SHALL BE INSTALLED AFTER DEAD LOAD HAS BEEN APPLIED.

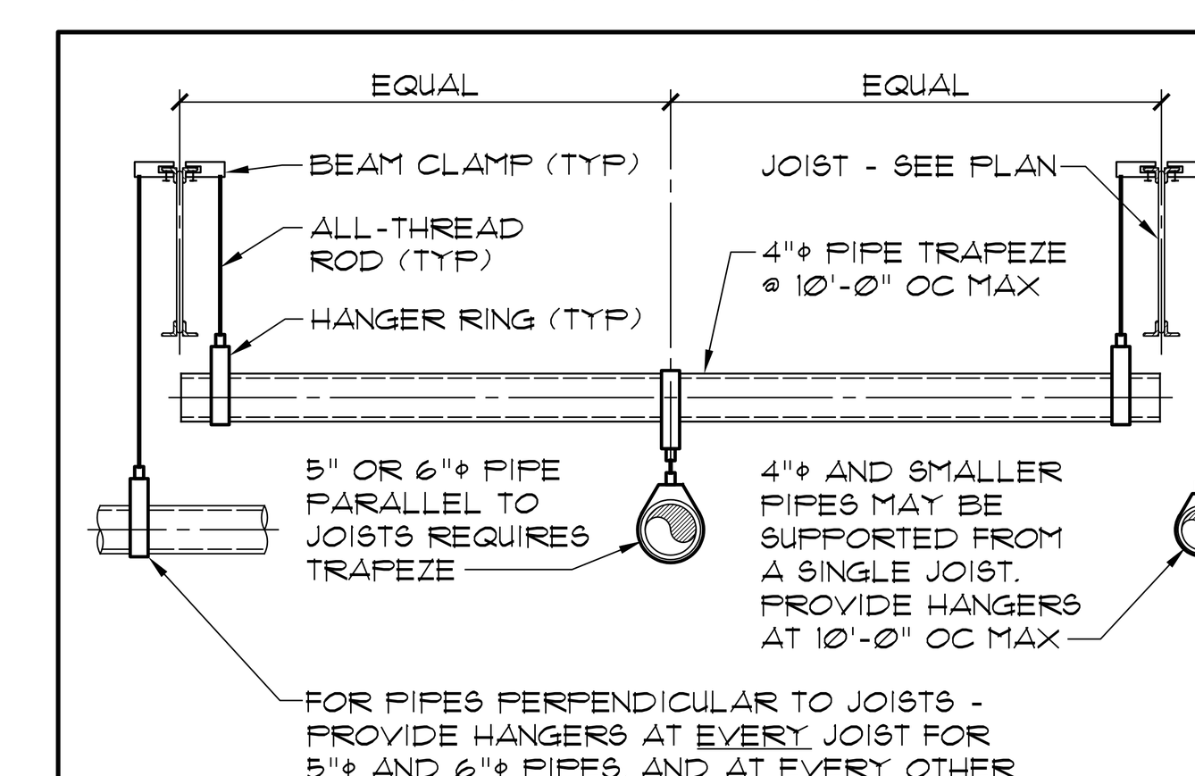
SJ12 BOLTED TIE JOISTS (BTJ) ARE USED IN STEEL FRAMES WHERE COLUMNS ARE NOT FRAMED IN AT LEAST TWO DIRECTIONS WITH STRUCTURAL STEEL MEMBERS. JOIST(S) AT COLUMN LINES SHALL BE FIELD BOLTED AT THE COLUMNS WITH TWO 1/2"⌀ BOLTS TO PROVIDE LATERAL STABILITY DURING CONSTRUCTION.

SJ13 STEEL JOISTS SHALL RECEIVE SHOP COAT OF PRIMER (COLOR AS DIRECTED BY ARCHITECT) EXCEPT THOSE AREAS WHICH WILL RECEIVE SPRAY-ON FIRE PROTECTION.

SJ14 ANY STEEL JOIST WITHIN A 4'-0" DISTANCE FROM A PARALLEL SUPPORT SHALL BE FABRICATED IN SUCH A WAY THAT CAMBER OF THE JOIST WILL NOT CAUSE A PROBLEM INSTALLING THE METAL DECK. CAMBER SHALL BE INTERPOLATED USING SJI STANDARD CAMBER SCHEDULE AND REDUCED BASED ON THE REDUCTION OF TRIBUTARY SPACING USING A 5'-0" SPACING AS STANDARD FOR REQUIRED CAMBER.

SJ15 IN THE EVENT THAT FIRE SPRINKLERS ARE REQUIRED FOR THIS PROJECT, THE STEEL FABRICATOR SHALL PROVIDE A DIMENSIONED JOIST BRIDGING AND JOIST GIRDER BOTTOM CHORD BRACE PLAN ALONG WITH DETAILS TO THE SPRINKLER CONTRACTOR. THE FABRICATOR AND SPRINKLER CONTRACTOR SHALL COORDINATE WITH EACH OTHER TO ENSURE THAT ANY CONFLICTS ARE RESOLVED BEFORE ANY FABRICATION BEGINS.

SJ16 ALL PIPES MUST BE SUPPORTED AS SHOWN BELOW:



NOTES:
1. LOCATE HANGERS WITHIN 6" OF THE JOIST TOP CHORD PANEL POINTS.
2. PIPES LARGER THAN 6" SHALL BE SUBMITTED TO ARCHITECT FOR APPROVAL PRIOR TO FABRICATION OF JOISTS. INCLUDE LOCATION OF PIPE AND PREFERRED HANGING DETAIL IF OTHER THAN INDICATED ABOVE. JOISTS SHALL BE SPECIALLY DESIGNED BY THE FABRICATOR TO SUPPORT PIPES LARGER THAN 6". THE WEIGHT OF THE PIPES LARGER THAN 6" IS NOT INCLUDED IN THESE DOCUMENTS UNLESS SPECIFICALLY INDICATED OTHERWISE. COORDINATE WITH APPLICABLE TRADES.
3. PIPES SUSPENDED IN CONFORMANCE WITH THIS DETAIL WILL LIMIT THE PIPE SYSTEM WEIGHT TO 3.5 PSF EQUIVALENT DISTRIBUTED LOAD.

TYPICAL PIPE HANGER DETAIL

SJ17 FABRICATOR SHALL ENSURE THAT ALL OSHA REQUIREMENTS ARE MET. PARTICULAR ATTENTION SHALL BE PAID TO THE ERECTION PROCESS, BOLTED CONNECTIONS MAY BE REQUIRED. SUBMIT DETAILS FOR APPROVAL.

SJ18 THE JOIST MANUFACTURER MAY NOT INCREASE ALLOWABLE STRESSES.

SJ19 THE OPEN WEB STEEL JOISTS SHALL BE FABRICATED AND ERECTED IN FULL CONFORMANCE WITH THE "OSHA STEEL ERECTION STANDARD". IF THE CONSTRUCTION DRAWINGS DEVIATE FROM THE OSHA STANDARD THEN THE FABRICATOR SHALL PROVIDE SUBMITTALS THAT CLEARLY INDICATE THE DEVIATION WITH A REVISION CLOUD AND REQUEST APPROVAL FROM BBM TO MAKE THE CHANGE SO THAT CONFORMANCE WITH THE OSHA STANDARD IS ASSURED.

SJ20 ALL ROOFS THAT EXCEED 1/4"/FT SLOPE SHALL HAVE THE JOIST BEARING SEATS SLOPED AS REQUIRED PER STEEL JOIST INSTITUTE.

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PROJECT

Park Place at Douglas
Douglas Ave
Altamonte Springs, Florida

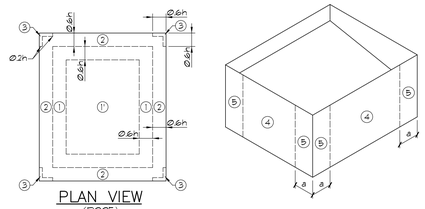
REVISION DATES

DATE
8-30-24

SHEET TITLE
STRUCTURAL GENERAL NOTES

SHEET NUMBER
S02

PROJECT NO.
012-24



PLAN VIEW
(ROOF)

NOTES:

1. A (Kd) OF Ø.85 HAS BEEN USED IN THE DEVELOPMENT OF THESE VALUES. THE USE OF THESE VALUES SHALL ONLY BE APPLIED WHEN USED IN CONJUNCTION WITH LOAD COMBINATIONS SPECIFIED IN SECTIONS 2.3 & 2.4 OF ASCE 7-22.
2. PRESSURES AND SUCTIONS ON SOFFITS SHALL BE THE SAME AS CORRESPONDING WALL ZONES 4 & 5.
3. IF THE STRUCTURE IS AN EHPA OR IS INSURED BY FACTORY MUTUAL (FM) THE GROSS UPLIFT DESIGN PRESSURES SHOWN HEREIN SHALL BE DOUBLED FOR ROOF COVERINGS.
4. THE "ULTIMATE" WIND LOADS SHOWN IN THE COMPONENTS AND CLADDING SCHEDULE SHALL BE MULTIPLIED BY Ø.6 TO REDUCE THEM DOWN TO "SERVICE" LEVEL FOR ALL TESTED ASSEMBLIES, INCLUDING BUT NOT LIMITED TO DOORS, WINDOWS AND ROOF ASSEMBLIES.
5. PARAPET WIND LOADS ARE BASED ON A "SOLID" PARAPET WITH NO INTERNAL PRESSURE. ACTUAL PARAPET CONSTRUCTION MAY DICTATE THAT INTERNAL PRESSURE BE ADDED TO THE EXTERNAL PRESSURE IN ACCORDANCE WITH ASCE 7-22 SECTION 30.6.
6. UPLIFT VALUES FOR ZONE 2 MAY BE USED IN LIEU OF ZONE 3 FOR CORNER ZONES IF PARAPET HEIGHT WITH RESPECT TO FINISHED ROOF IS GREATER THAN 3 ft.
7. FOR ATTACHED CANOPIES ON BUILDING, REFERENCE ASCE 7-22 SECTION 30.9 FOR PRESSURE COEFFICIENTS.
8. DEAD LOAD OF 12 PSF (NO FURTHER REDUCTION ALLOWED) SHALL BE USED TO CONVERT GROSS UPLIFT TO NET UPLIFT FOR OPEN WEB JOIST DESIGN.

WIND DESIGN CRITERIA

Ultimate Design Wind Speed	135 mph
Service Design Wind Speed	104.8 mph
Risk Category	II
Exposure Category	C
Enclosure Classif.	Enclosed Building
Internal Pressure Coef.	+/-0.18

COMPONENT AND CLADDING ULTIMATE WIND PRESSURES

h = 19.4 Ft. | a = 4.2 Ft.

Roof	Surface Pressure (psf)			
Area	10 sf	100 sf	500 sf	1000 sf
Negative Zone 1	-93.3	-49.9	-40.0	-40.0
Negative Zone 1'	-36.7	-36.7	-24.8	-19.7
Negative Zone 2	-54.2	-66.2	-53.6	-53.6
Negative Zone 3	-54.2	-66.2	-53.6	-53.6
Positive Zone 1 & 1'	16.3	16.0	16.0	16.0
Positive Zones 2 & 3	36.7	31.3	27.5	27.5
Overhang Zone 1&1'	-57.7	-54.3	-33.9	-33.9
Overhang Zone 2	-78.1	-54.1	-37.3	-37.3
Overhang Zone 3	-78.1	-54.1	-37.3	-37.3

Negative zone 3 = zone 2, since parapet >= 3Ft.
Overhang pressures in the table above assume an internal pressure coefficient (Gcpi) of 0.0
Overhang soffit pressure equals adj wall pressure (which includes internal pressure of 6.1 psf)

Parapet		Solid Parapet Pressure (psf)					
	Area	10 sf	20 sf	50 sf	100 sf	200 sf	500 sf
CASE A:	Zone 2 :	118.6	110.9	100.7	93.0	85.4	75.2
	Zone 3 :	118.6	110.9	100.7	93.0	85.4	75.2
CASE B:	Interior zone :	-70.0	-66.5	-61.8	-58.2	-54.7	-50.0
	Corner zone :	-80.0	-74.7	-67.7	-62.4	-57.0	-50.0

Wall	Surface Pressure (psf)			
Area	10 sf	100 sf	200 sf	500 sf
Negative Zone 4	-39.7	-34.3	-32.7	-30.5
Negative Zone 5	-48.9	-38.1	-34.8	-30.5
Positive Zone 4 & 5	36.7	31.3	29.6	27.5

TORNADO DESIGN CRITERIA

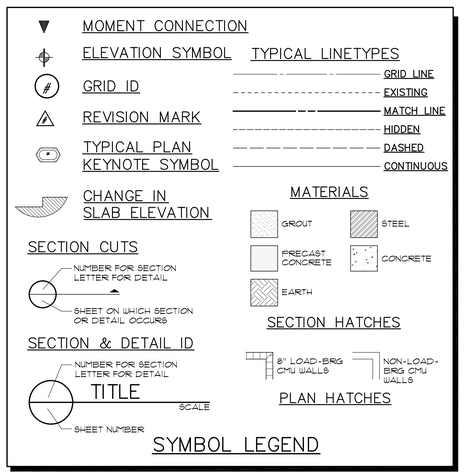
Tornado Wind Speed	120 mph
Effecting Area	50,000 sf
Internal Pressure Coef.	0.55
	-0.18

TORNADO DESIGN NOT REQUIRED FOR RISK I OR II

WIND CALCS

ABBREVIATIONS

AAC	AUTOCLAVED AERATED CONCRETE
AB	ANCHOR BOLT
ABV	ABOVE
ACI	AMERICAN CONCRETE INSTITUTE
ADDL	ADDITIONAL
AFF	ABOVE FINISH FLOOR
AGGR	AGGREGATE
AISC	AMERICAN INSTITUTE OF STEEL CONSTRUCTION
AISI	AMERICAN IRON AND STEEL INSTITUTE
AL	ALUMINUM
ALT	ALTERNATE
AR	ANCHOR ROD
ARCH	ARCHITECT(URAL)
ASD	ALLOWABLE STRESS DESIGN
ASTM	AMERICAN SOCIETY OF TESTING MATERIALS
AWS	AMERICAN WELDING SOCIETY
B/	BOTTOM OF
BB	BOND BEAM
BLDG	BUILDING
BLW	BELOW
BM	BEAM
BOT	BOTTOM
BP	BASE PLATE
BRDG	BRIDGING
BRG	BEARING
BRK	BRICK
BS	BOTH SIDES
BTJ	BOLTED TIE JOIST
BTWN	BETWEEN
C/C	CENTER TO CENTER
CANT	CANTILEVER
CB	CONCRETE BEAM
CC	CONCRETE COLUMN
CFMF	COLD FORMED METAL FRAMING
CFS	COLD-FORMED STEEL
CIP	CAST-IN-PLACE
CJ	CONSTRUCTION JOINT (OR CONTROL JOINT)
℄, CL	CENTERLINE
CLR	CLEAR(ANCE)
CM	CONSTRUCTION MANAGER
CMU	CONCRETE MASONRY UNIT
COL	COLUMN
CONC	CONCRETE
CONN	CONNECTION
CONT	CONTINUOUS
CONTR	CONTRACTOR
COORD	COORDINATE
CSK	COUNTER SINK
CTR	CENTER
CTRD	CENTERED
CY	CUBIC YARD
DBA	DEFORMED BAR ANCHOR
DIA	DIAMETER
DIAG	DIAGONAL
DL	DEAD LOAD
DN	DOWN
DTL	DETAIL
DWG	DRAWING
DWL	DOWEL
EA	EACH
EE	EACH END
EF	EACH FACE
EJ	EXPANSION JOINT
ENG	ENGINEER
EOS	EDGE OF SLAB
EL	ELEVATION
EQ	EQUAL
EQ SP	EQUAL SPACE(S) (ING)
ES	EACH SIDE
EW	EACH WAY
EXIST	EXISTING
EXP	EXPANSION
EXT	EXTERIOR
F/	FACE OF
FBC	FLORIDA BUILDING CODE
FD	FLOOR DRAIN
FDN	FOUNDATION
FF	FINISHED FLOOR
FIN	FINISH
FLR	FLOOR
FLG	FLANGE
FMG	FRAMING
FS	FAR SIDE
FT	FOOT
FTG	FOOTING
ga	GAUGE
GALV	GALVANIZE(D)
GB	GRADE BEAM
GC	GENERAL CONTRACTOR
GFC	GROUT FILLED CELL(S) / COURSE
GLB	GLU-LAM BEAM
GR	GRADE
GT	GIRDER TRUSS
HC	HOLLOW-CORE
HDG	HOT DIPPED GALVANIZED
HK	HOOK
HORIZ	HORIZONTAL
HP	HIGH POINT
HS	HEADED STUD
HSS	HOLLOW STRUCTURAL SECTION
ID	INSIDE DIAMETER
IF	INSIDE FACE
INT	INTERIOR
JST	JOIST
JT	JOINT
K	KIP
KO	KNOCK-OUT
lb, #	POUND(S)
LG	LONG
LL	LIVE LOAD
LLBB	LONG LEG BACK-TO-BACK
LLH	LONG LEG HORIZONTAL
LLV	LONG LEG VERTICAL
LNTL	LINTEL
LSL	LONG SLOTTED
LOC	LOCATION
LONG	LONGITUDINAL
LP	LOW POINT
LRFD	LOAD & RESISTANCE FACTOR DESIGN
LW	LONG WAY
MAS	MASONRY
MATL	MATERIAL
MAX	MAXIMUM
MB	MACHINE BOLT
MBM	METAL BUILDING MFR
MC	MASONRY COLUMN
MCJ	MASONRY CONTROL JT
MCN	MOMENT CONNECTION
ME	MONOLITHIC EDGE
MECH	MECHANICAL
MEZZ	MEZZANINE
MF	MONOLITHIC FOOTING
MFR	MANUFACTURE(ER)
MIN	MINIMUM
MISC	MISCELLANEOUS
MO	MASONRY OPENING
MS	METAL STUD
MTL	METAL
MUF	MONOLITHIC WALL FOOTING
NIC	NOT IN CONTRACT
NS	NEAR SIDE
NTS	NOT TO SCALE
OA	OVERALL
OC	ON CENTER
OD	OUTSIDE DIAMETER
OF	OUTSIDE FACE
OH	OPPOSITE HAND
OHD	OVERHEAD
OPNG	OPENING
OPP	OPPOSITE
PAF	POWDER-ACTUATED FASTENER(S)
PB	PRE-CAST BEAM
PEMB	PRE-ENGINEERED METAL BUILDING
PERP	PERPENDICULAR
PC	PRECAST
PL, PL	PLATE
PLS	PLACES
PLF	POUNDS PER LINEAR FOOT
PLYWD	PLYWOOD
PNL	PANEL
PSF	POUNDS PER SQUARE FOOT
PSI	POUNDS PER SQUARE INCH
PTN	PARTITION
R	RADIUS
RC	REINFORCED CONCRETE
REF	REFERENCE
REINF	REINFORCE(D) (ING)
REQ	REQUIRE
REQ'D	REQUIRED
RF	ROOF
RM	ROOM
RO	ROUGH OPENING
RPT	RADIUS POINT
RTN	RETURN
RW	REINFORCED WITH
SCH	SCHEDULE
SDI	STEEL DECK INSTITUTE
SECT	SECTION
SF	STEPPED FOOTING
SHT	SHEET
SHW	SHEAR WALL
SIM	SIMILAR
SJ	SAWCUT JOINT
SJI	STEEL JOIST INSTITUTE
SL	SLOPE
SLBB	SHORT LEG BACK-TO-BACK
SOG	SLAB ON GRADE
SP	SPACE(S)
SPECS	SPECIFICATIONS
SQ	SQUARE
SS	STAINLESS STEEL
SSL	SHORT SLOTTED
STD	STANDARD
STIFFR	STIFFENER
STL	STEEL
STR	STRENGTH
STRL	STRUCTURAL
SW	SHORT WAY
SYMM	SYMMETRICAL
SYP	SOUTHERN YELLOW PINE
T&B	TOP AND BOTTOM
TB	TIE BEAM
TC	TIE COLUMN
TEMP	TEMPERATURE
THK	THICK
TOPG	TOPPING
TRANS	TRANSVERSE
TYP	TYPICAL
T/	TOP OF
UNO	UNLESS NOTED OTHERWISE
VIF	VERIFY IN FIELD
VERT	VERTICAL
WD	WOOD
WF	WALL FOOTING
WO	WINDOW OPENING (MASONRY)
WP	WORKING POINT
WS	WATERSTOP
WWF	WELDED WIRE FABRIC
W/	WITH



SYMBOL LEGEND

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SHEET TITLE
WIND CALCS, SYMBOL LEGEND & ABBREVIATIONS

SHEET NUMBER
S03

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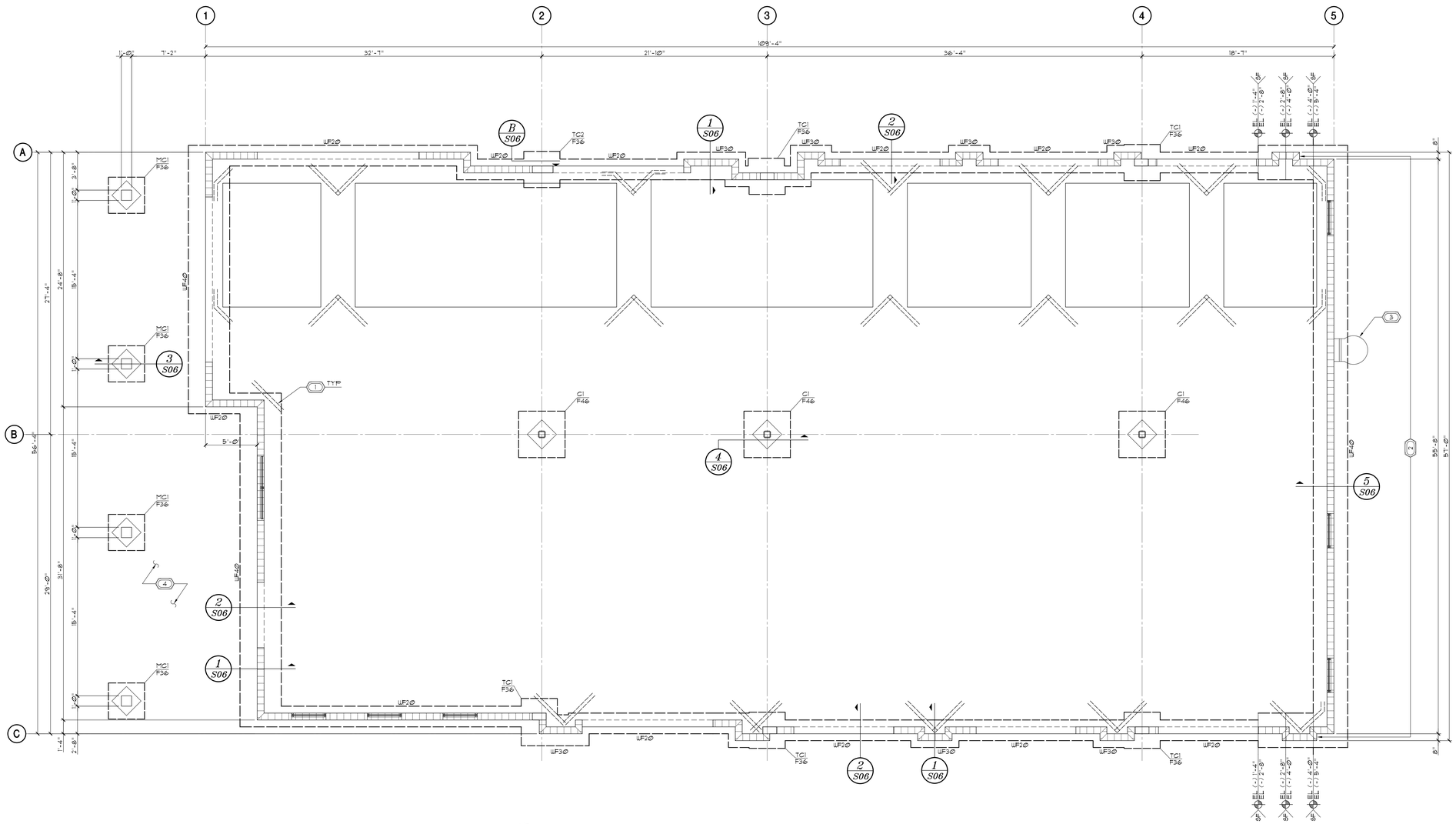
012-24



FOUNDATION PLAN

SCALE: 1/4"=1'-0"

FOUNDATION PLAN NOTES:

1. FLOOR SLAB SHALL BE 4" THICK CONCRETE REINF WITH 6x6-W1.4xW1.4 WF. UNO IN ARCHITECTURAL SPECIFICATIONS. PROVIDE CLASS "A" (MIN 10 MIL) VAPOR RETARDER (ASTM E 1745-11) ON COMPACTED AND TERMITE TREATED SUBGRADE. SEE "SLAB-ON-GRADE DETAILS" ON SHEET S06 FOR PLACEMENT OF REINF.

1a. FIBER-REINFORCED CONCRETE IS AN ACCEPTABLE ALTERNATIVE TO WELDED-WIRE FABRIC. REINFORCED CONCRETE FIBERS SHALL BE 100% VIRGIN POLYPROPYLENE FIBRILLATED FIBERS AS MANUFACTURED BY FIBER MESH CO. (OR APPROVED EQUAL) APPLIED AT A RATE OF 1 1/2 lbs/CY.

2. T/ SLAB EL = 0'-0" (TYP. UNO). REFERENCE ONLY - SEE CIVIL DWGS FOR ACTUAL ELEVATION.

3. T/ WALL FTG EL = (-) 1'-4" (TYP. UNO).

4. T/ COL FTG EL = (-) 1'-4" (TYP. UNO).

5. ALL CMU BEARING WALLS ARE 8" (TYP. UNO).

6. STEP AND/OR LOWER FOUNDATIONS WHERE SHOWN AND AS NECESSARY TO AVOID INTERFERENCE WITH OTHER TRADES. SEE CONCRETE GENERAL NOTES FOR DETAILS AND SECTIONS. PARTICULAR ATTENTION SHALL BE PAID TO DOWNSPOUTS ENSURING THAT PROPER ACTIONS HAVE BEEN TAKEN TO PREVENT PIPES FROM CONFLICTING WITH THE FOUNDATION SYSTEM.

7. ALL FTGS ARE CENTERED BENEATH BEARING WALLS AND COLUMNS (TYP. UNO).

8. REINF LOAD-BEARING CMU WALLS WITH #5 VERT BAR CENTERED IN GROUT-FILLED CELL AT ENDS, CORNERS AND AT MAX SPACING OF 16" OC. ADDITIONAL FILLED CELLS REQUIRED AT JAMBS ARE SHOWN THUS "■" ON EACH STRUCTURAL PLAN. SEE "ILLUSTRATIVE PLAN OF VARIOUS CMU WALL CONDITIONS" ON SHEET S02 FOR ADDITIONAL REQUIRED FILLED CELLS AND OTHER INFORMATION.

9. TYP SPACING OF FILLED CELLS SHALL APPLY ABOVE AND BELOW OPENINGS ALSO.

10. SEE SHEET S06 FOR SCHEDULED PRECAST BEAMS (PB) REQUIRED AT ALL MASONRY OPENINGS, UNO. PB'S SHALL BE PROVIDED FOR ALL OPENINGS BASED ON THE PB SPAN AS INDICATED IN SCHEDULE.

11. SEE SHEETS S01 AND S02 FOR STRUCTURAL GENERAL NOTES.

12. MAINTAIN STRUCTURAL SLAB THICKNESS AT ALL FLOOR SLOPES AND DEPRESSIONS.

13. THE CONTRACTOR SHALL COORDINATE ALL UNDERGROUND UTILITIES, PIPES, ETC... WITH THE FOUNDATION PLAN AND FOUNDATION ELEVATIONS. FOOTING PENETRATION DETAILS MAY BE FOUND IN THE CONCRETE AND REINFORCING SECTION OF THE STRUCTURAL GENERAL NOTES.

FOUNDATION PLAN KEY NOTE:

1. (2) #4x4'-0" LONG @ 3" OC PLACED 2" CLR FROM CORNER, CENTERED IN SLAB (TYP WHERE SHOWN).
2. PROVIDE #5 VERT BAR @ 8' OC FROM FOUNDATION TO SLAB ON GRADE. SEE NOTE #8 FOR WALL REINF REQUIREMENTS ABOVE SLAB ON GRADE.
3. ROOF ACCESS LADDER BY SPECIALTY ENGR. SEE NOTE E61 ON SHEET S01.
4. SEE CIVIL DRAWINGS FOR EXTERIOR SLABS, TYPICAL.

FOUNDATION LEGEND:

- TC - INDICATES TIE COLUMN. SEE SCHEDULE ON SHEET S06 FOR INFO.
- MC - INDICATES MASONRY COLUMN. SEE DETAIL ON SHEET S06 FOR INFO.
- MCJ - INDICATES MASONRY CONTROL JOINT. SEE M21 ON GENERAL NOTE SHEET S02 FOR INFO.
- C - INDICATES STEEL COLUMN. SEE SCHEDULE ON SHEET S06 FOR INFO.
- F - INDICATES PAD FOOTING. SEE FOUNDATION SCHEDULE ON SHEET S06 FOR INFO.
- WF - INDICATES WALL FOOTING. SEE FOUNDATION SCHEDULE ON SHEET S06 FOR INFO.
- ME - INDICATES MONOLITHIC EDGE. SEE FOUNDATION SCHEDULE ON SHEET S06 FOR INFO.

NOTE TO GC:
LOCATION OF MASONRY CONTROL JOINTS (MCJ) SHALL BE COORDINATED WITH ARCHITECTURAL DRAWINGS AND SHALL NOT EXCEED REQUIREMENTS OUTLINED IN NOTE M20 ON SHEET S02. FOR ADDITIONAL FILLED CELLS REQUIRED AT MASONRY CONTROL JOINTS AND NOT SHOWN ON FOUNDATION PLANS, SEE "ILLUSTRATIVE PLAN OF VARIOUS CMU WALL CONDITIONS" ON SHEET S02. SUBMIT MCJ PLAN TO ARCHITECT FOR APPROVAL.

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SHEET TITLE
FOUNDATION PLAN

SHEET NUMBER
S04

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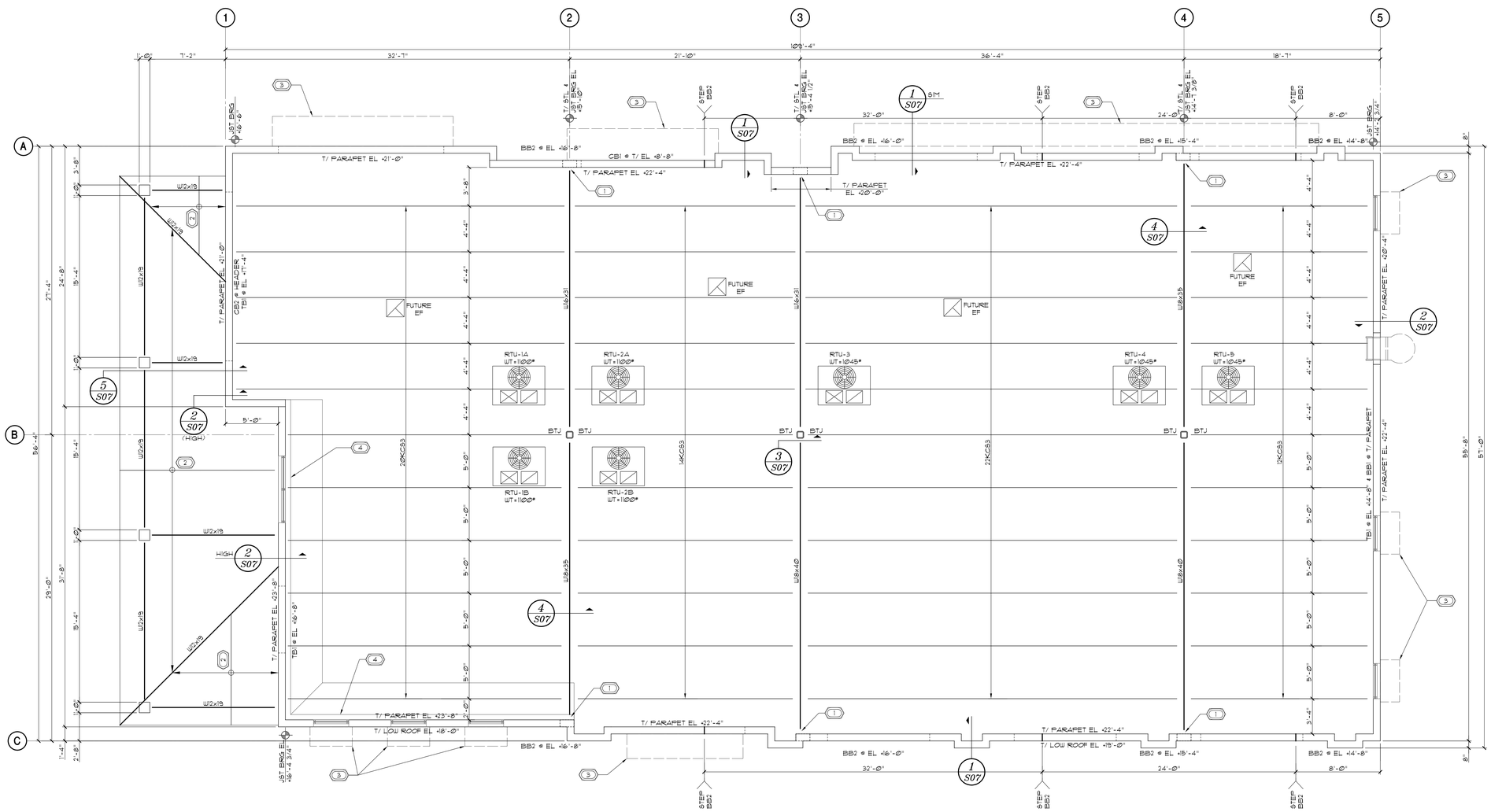

ROOF FRAMING PLAN

SCALE: 1/4"=1'-0"

ROOF FRAMING PLAN NOTES:

1. RIGID INSULATION ROOFING ON 1 1/2"-20ga. TYPE "B" GALV G90 METAL DECK SECURED WITH HILTI POWDER ACTUATED FASTENERS AT SUPPORTS AND #0 TEK SCREWS AT SIDELAPS ON OPEN WEB BAR JOISTS AND/OR STRUCTURAL STEEL MEMBERS. USE X-HBN-24 FOR STEEL BAR JOISTS TOP CHORD OR FLANGE THICKNESS 1/8" OR 3/8", AND X-ENP-19 L/B FOR STRUCTURAL STEEL AND STEEL BAR JOISTS WITH TOP CHORD OR FLANGE THICKNESS 1/4" OR THICKER. PROVIDE A 36/1 PATTERN AT SUPPORTS WITH SPACING AT EXTREME SIDES OF 12" OC. (6) SCREWS PER SPAN SHALL BE PROVIDED AT SIDELAPS. FLORIDA PRODUCT APPROVALS AND/OR NOTICE OF ACCEPTANCE TESTING DATA MAY REQUIRE A DIFFERENT ATTACHMENT PATTERN, DIFFERENT SIDELAP SPACING AND/OR DIFFERENT ATTACHMENT TYPE(S). PROVIDE THE MORE STRINGENT OF WHAT IS CALLED FOR HEREIN AND WHAT THE TESTED ASSEMBLY REQUIRES.

   GC OPTION TO SUBSTITUTE 5/8"ø PUDDLE WELDS IN LIEU OF HILTI FASTENERS. PROVIDE WELD WASHERS IF REQUIRED BY PRODUCT APPROVAL DOCUMENTATION OR ANY OTHER GOVERNING ENTITY.

2. SEE STRUCTURAL GENERAL NOTES FOR BRIDGING REQUIREMENTS FOR OPEN-WEB STEEL JOISTS.

3. JOISTS DESIGNATED "KCS" (K-SERIES CONSTANT SHEAR PER "VULCRAFT" TABLES) SHALL BE UTILIZED (IF REQ'D) AT CONCENTRATED LOADS (SEE FRAMING PLAN).

4. SEE FRAMING PLAN FOR JOIST BEARING ELEVATIONS.

5. REF. ARCH'L DWGS FOR INTERIOR DRAINS, SCUPPERS, CRICKETS AND SCUTTLES.

6. "BTJ" INDICATES BOLTED TIE JOIST PER OSHA REQUIREMENTS (TYP.). SEE GENERAL NOTE SJI2 FOR ADDITIONAL INFORMATION.

7. COORDINATE SIZE AND LOCATION OF ROOFTOP UNITS WITH MECHANICAL DWGS (IF APPLICABLE).

8. BEAM END REACTIONS AS SHOWN ON PLAN ARE ULTIMATE REACTIONS (ALREADY FACTORED).

9. ALL ROOF DRAINS (WHERE REQUIRED) SHALL BE SUPPORTED BY A L3x3x1/4 ANGLE FRAME, TYP.

10. MASONRY BOND BEAMS AND TIE BEAMS THAT ARE INDICATED ON THE PLAN SHALL BE CONTINUOUS FOR THE ENTIRE LENGTH OF THE WALL, UNO. ELEVATIONS INDICATED ON PLAN ARE TO THE TOP OF BEAM, UNO.

11. ALL WIDE FLANGE MEMBERS SHALL BE CONNECTED TO THE SUPPORTING STRUCTURE AS DETAILED IN THE CONNECTION SCHEDULES ON SHEET S07, UNLESS SPECIFICALLY NOTED OTHERWISE ON PLAN. ALL ROOF MEMBERS SHALL BE CONNECTED AS DETAILED IN THE SINGLE SHEAR SCHEDULES B/S07 AND C/S07.

ROOF LEGEND:

- BB - INDICATES BOND BEAM. SEE SCHEDULE ON SHEET S06 FOR INFO.
- CB - INDICATES CONCRETE BEAM. SEE SCHEDULE ON SHEET S06 FOR INFO.
- TB - INDICATES TIE BEAM. SEE SCHEDULE ON SHEET S06 FOR INFO.
- PB - INDICATES PRECAST BEAM. SEE SCHEDULE ON SHEET S06 FOR INFO.
- BTJ - INDICATES BOLTED TIE JOIST. SEE DETAIL ON SHEET S07 FOR INFO.

ROOF FRAMING PLAN KEY NOTES:

(1) TYPICAL BEAM TO WALL CONN (UNO), SEE C/S07.

(2) MTL FRAMING & ITS CONNECTIONS BY SPECIALTY ENG.

(3) PRE-ENGINEERED AWNINGS, SEE NOTE SE5 ON SHEET S01.

(4) METAL FRAMED PARAPET AND DIAGONAL BRACING BY SPECIALTY ENGINEER. SEE NOTE SE6 ON SHEET S01.

ROOF DESIGN LOADS

DEAD LOAD	LIVE LOAD
20 PSF	20 PSF (UNREDUCIBLE)

NOTES:
1. SEE TABLE ON SHEET S03 FOR GROSS UPLIFT LOADS.
2. SEE PLAN FOR CONCENTRATED LOADS.
3. ROOF STRUCTURE HAS BEEN DESIGNED TO SUPPORT THE WEIGHT OF PONDED WATER CAUSED BY CLOGGING OF THE PRIMARY ROOF DRAINS FOR A DEPTH OF (4) INCHES.

NOTE TO ERECTOR:
ALL STRUCTURAL STEEL CONNECTIONS TO EMBED PLATES SHALL BE "FINGER TIGHT" WITH REENED THREADS. ALL STRUCTURAL STEEL CONNECTIONS TO OTHER STRUCTURAL STEEL MEMBERS SHALL BE "SNUG TIGHT". NO BOLTED CONNECTION SHALL BE FULLY TENSIONED UNLESS SLIP CRITICAL (SC) BOLTS ARE SPECIFICALLY INDICATED. ADDITIONALLY, FIELD WELDING OF ANY BOLTED CONNECTION IS STRICTLY PROHIBITED UNLESS WRITTEN ACCEPTANCE IS PROVIDED BY BBM.

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SHEET TITLE
ROOF FRAMING PLAN

SHEET NUMBER
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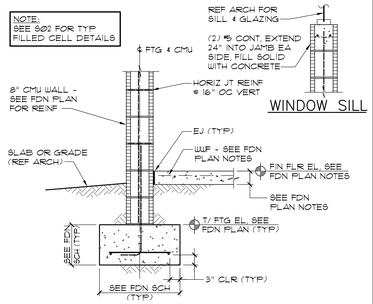
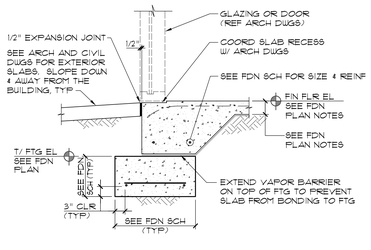
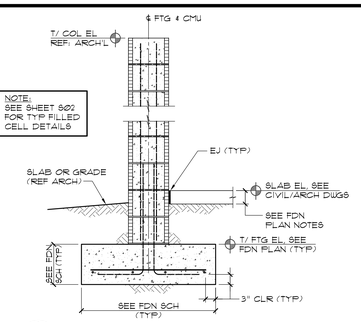


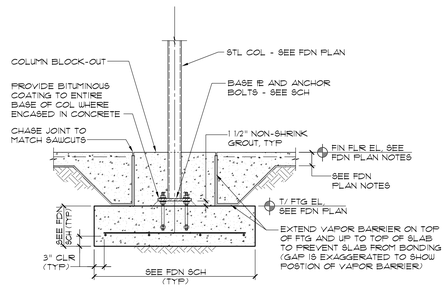
1 S06 SECTION @ EXTERIOR CMU WALL
SCALE: 3/4"=1'-0" TYP UNO



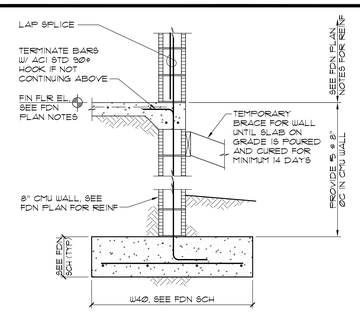
2 S06 SECTION @ EXTERIOR CMU WALL OPENING



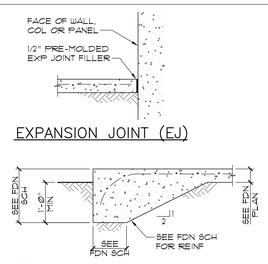
3 S06 SECTION @ MASONRY COLUMN (MC1)

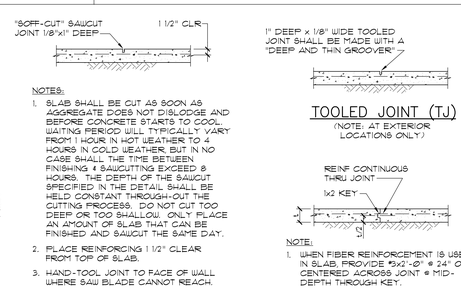


4 S06 SECTION @ INTERIOR HSS COL FTG

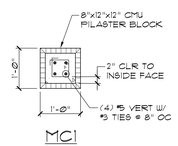


5 S06 SECTION @ GRID LINE "5"

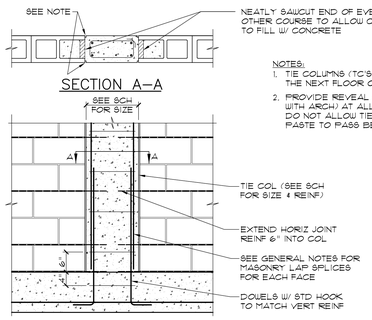




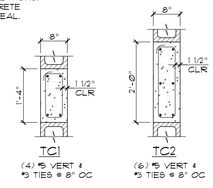
A S06 SLAB-ON-GRADE DETAILS (FOOT TRAFFIC)



B S06 DETAIL @ MASONRY COLUMN



C S06 DETAIL - TIE COLUMN



TIE COLUMN TYPES

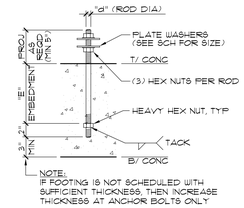
COLUMN & BASE PLATE SCHEDULE

MARK	SIZE	BASE PLATE SIZE (INCHES) A	B	T	ANCHOR ROD (INCHES) E	d	COMMENTS
C1	HSS 8x8x1/4	11	11	3/4	9	3/4	

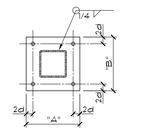
NOTES:
1. ANCHOR RODS SHALL BE ASTM F1554 (GRADE 36) UNO, THREADED EACH END WITH NUT AT BOTTOM PLATE WASHER AT BOTTOM NUT IS NOT REQ'D. INCREASE FOOTING THICKNESS AT ANCHOR RODS TO PROVIDE MIN 3" COVER. SEE NOTE BELOW IN ANCHOR ROD DETAIL.
2. PLATE WASHERS SHALL HAVE HOLE WITH DIAMETER EQUAL TO ROD DIAMETER + 1/16". CIRCULAR OR SQUARE WASHERS ARE ACCEPTABLE.
3. IT SHALL BE ACCEPTABLE TO PROVIDE A HEAVY HEX HEAD BOLT IN LIEU OF THE THREADED ROD WITH HEAVY HEX NUT AT BOTTOM.

OVERSIZE HOLES AND PLATE WASHERS FOR BASE PLATES

ROD DIAMETER	HOLE DIAMETER	PLATE WASHER	ROD DIAMETER	HOLE DIAMETER	PLATE WASHER
3/4"	1 5/16"	1/4"x2"x2"	1 1/2"	2 3/8"	1/2"x4"
7/8"	1 9/16"	5/16"x2 1/2"x2 1/2"	1 3/4"	2 7/8"	5/8"x4 1/2"
1"	1 7/8"	3/8"x3"x3"	2"	3 1/4"	3/4"x5"
1 1/4"	2 1/8"	1/2"x3 1/2"x3 1/2"	2 1/2"	3 3/4"	7/8"x5 1/2"



ANCHOR ROD DETAIL
NOT TO SCALE



BASE PLATE DETAIL
NOT TO SCALE

E S06 COLUMN & BASE PLATE SCHEDULE

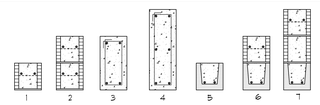
FOUNDATION SCHEDULE

MARK	SIZE (L x W x D)	REINFORCING	REMARKS
F36	3'-6" x 3'-6" x 1'-0"	(4) #5 EA WAY, BOT	PAD FOOTING
F46	4'-6" x 4'-6" x 1'-0"	(4) #5 EA WAY, BOT	PAD FOOTING
WF20	CONT x 2'-0" x 1'-0"	(2) #5 CONT & #5 @ 48" TRANS, BOT	WALL FOOTING
WF40	CONT x 4'-0" x 1'-0"	(4) #5 CONT & #5 @ 12" TRANS, BOT	WALL FOOTING
ME10	CONT x 1'-0" x 1'-4"	(1) #5 CONT, BOT	MONOLITHIC EDGE

D S06 FOUNDATION SCHEDULE

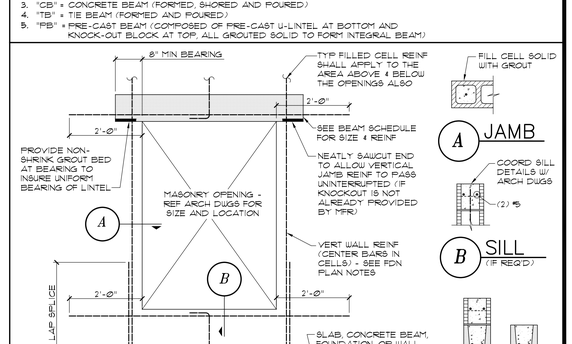
MASONRY WALL BEAM SCHEDULE

MARK	TYPE	NOMINAL SIZE (W"xD")	REINFORCING BOT	MID	TOP	STIRRUPS SIZE	SPACING	COMMENTS
BB1	1	8x8	--	(2) #5	--	--	--	
BB2	2	8x16	(2) #5	--	(2) #5	--	--	
CB1	3	8x16	(2) #5	--	(2) #5	#3	6"	
CB2	3	8x16	(2) #5	--	(2) #5	#3	6"	
TB1	3	8x16	(2) #5	--	(2) #5	--	--	
FB1	5	8x8	(2) #5	--	--	--	--	MIN 1200 PLF CAP, FOR CLEAR SPAN UP TO 6'-0" (NOTE 1)
FB2	6	8x16	(2) #5	--	(2) #5	--	--	MIN 1150 PLF CAP, FOR CLEAR SPAN UP TO 12'-0" (NOTE 1)
FB3	7	8x24	(2) #5	(2) #5	(2) #5	--	--	MIN 1700 PLF CAP, FOR CLEAR SPAN UP TO 16'-0" (NOTE 1)

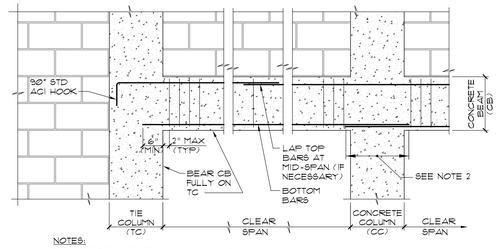


BEAM TYPES

NOTES:
1. MIN FB CAPACITY FOR THE INDICATED SPAN MUST BE VERIFIED BY THE PRECAST MFR AND DOCUMENTATION PROVIDED IN THE SUBMITTALS.
2. "BB" = BOND BEAM (COMPOSED OF KNOCK-OUT BLOCK)
3. "CB" = CONCRETE BEAM (FORMED, SHORED AND POURED)
4. "TB" = TIE BEAM (FORMED AND POURED)
5. "FB" = PRE-CAST BEAM (COMPOSED OF PRE-CAST U-LINTEL AT BOTTOM AND KNOCK-OUT BLOCK AT TOP, ALL GROUTED SOLID TO FORM INTEGRAL BEAM)



PRECAST BEAM ELEVATION
* NOTE: SOLID PRECAST LINTELS SHALL NOT BE USED.
NTS



NOTES:
1. PLACEMENT OF REINF TO BE PER ACI 318.
2. FOR BOTTOM BARS PROVIDE A CLASS "A" TENSION LAP CENTERED OVER SUPPORT OR TERMINATE BARS AS CONDITION WARRANTS.
3. SEE COLUMN SCHEDULES AND DETAILS FOR SIZE AND REINFORCING.

CONCRETE BEAM ELEVATION

F S06 MASONRY WALL BEAM SCHEDULE

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PROJECT

Park Place at Douglas
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Altamonte Springs, Florida

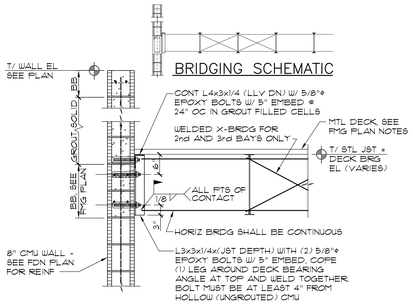
REVISION DATES

DATE
8-30-24

SHEET TITLE
FOUNDATION SECTIONS AND DETAILS

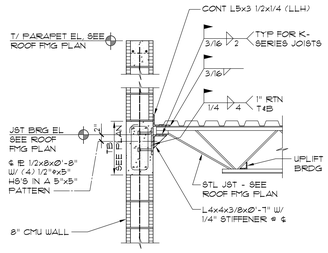
SHEET NUMBER
S06

PROJECT NO.
012-24

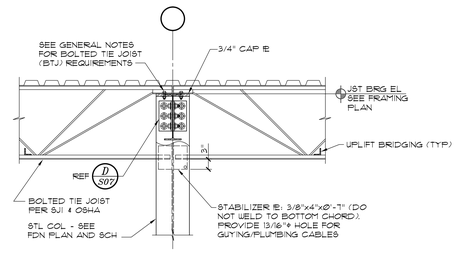


1 S07 SECTION @ BRIDGING

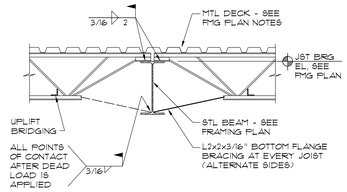
SCALE: 3/4"=1'-0" TYP UNO



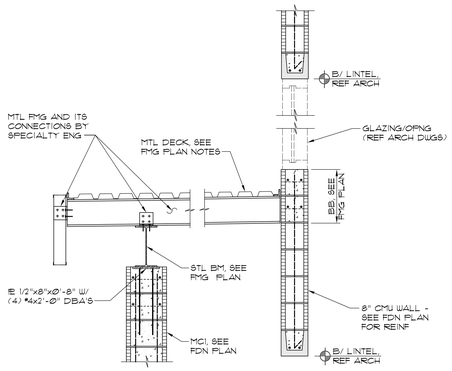
2 S07 SECTION @ JOIST BRG (K-SERIES JOIST)



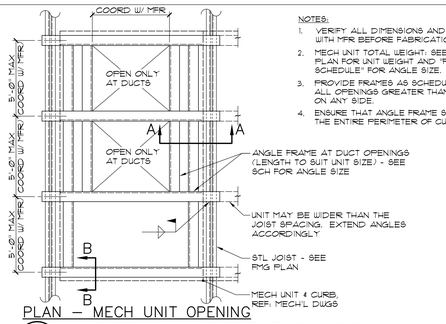
3 S07 SECTION @ BOLTED TIE JOIST (BTJ) & W-COL



4 S07 SECTION @ JOIST BRG

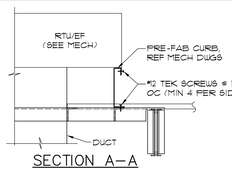


5 S07 SECTION @ STL BEAM TO MAS COL



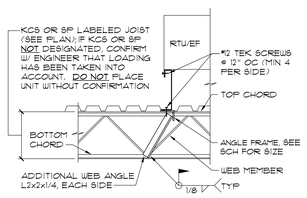
PLAN – MECH UNIT OPENING

NOTES:
1. VERIFY ALL DIMENSIONS AND DETAILS WITH MFR BEFORE FABRICATION.
2. MECH UNIT TOTAL WEIGHT: SEE FMG PLAN FOR UNIT WEIGHT AND "FRAME SCHEDULE" FOR ANGLE SIZE.
3. PROVIDE FRAMES AS SCHEDULED AT ALL OPENINGS GREATER THAN 2'-6" ON ANY SIDE.
4. ENSURE THAT ANGLE FRAME SUPPORTS THE ENTIRE PERIMETER OF CURB.



SECTION A–A

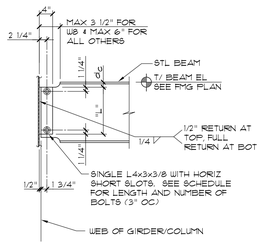
FRAME SCHEDULE	
UNIT WEIGHT (lbs)	ANGLE SIZE
Ø - 675	L4x3x1/4 (LLH)
676 - 1500	L4x3 1/2x5/16 (LLH)
1501 - 3000	L6x4x3/8 (LLH)
3001 - 6000	L6x6x3/8



SECTION B–B
CONCENTRATED LOAD REINFORCING ON KCS OR SP JOIST DESIGNATION

A S07 DETAIL – ROOF TOP MECHANICAL UNIT OPENINGS; ROOF DECK SUPPORT

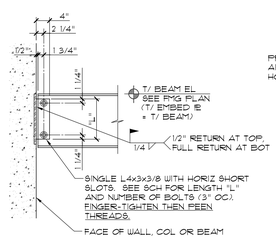
NTS

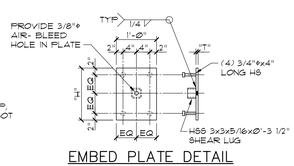


SHEAR CONNECTION SCHEDULE				
BEAM SIZE (SEE PLAN)	NUMBER OF ROWS OF 3/4" DIA A325N BOLTS	ANGLE LENGTH "L"	MAX DEPTH OF COPE "dc"	MAX ULTIMATE END REACTION (KIPS)
W8, W10	2	5 1/2"	1 1/8"	31.8
W12	3	8 1/2"	1 1/4"	47.7
W14, W16	4	11 1/2"	1 1/2"	63.6
W18	5	14 1/2"	1 1/2"	79.5

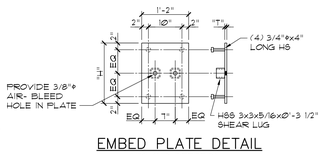
NOTES:
1. FOR BEAMS NOT SHOWN HEREIN, FABRICATOR SHALL DESIGN THE SHEAR CONNECTION BASED ON THE REACTION SHOWN ON THE PLAN.
2. ANGLE MATERIAL SHALL BE ASTM A36.
3. BEAM MATERIAL SHALL BE 50 KSI AND MAXIMUM WEB THICKNESS SHALL BE 1/2". END REACTIONS ARE NOT VALID FOR BEAMS WITH WEB THICKNESS GREATER THAN 1/2".
4. FABRICATOR SHALL VERIFY THAT CONNECTION IS ADEQUATE IF BEAM IS COPED MORE THAN INDICATED.
5. PROVIDE WASHER OVER SLOTTED HOLES.
6. WHERE BEAMS ARE ON EACH SIDE OF A GIRDER OR COLUMN WEB, THE ANGLES MUST BE STAGGERED.
7. BOLTS SHALL BE INSTALLED "SNUG-TIGHT".

B S07 TYPICAL FLOOR BEAM TO GIRDER/ COLUMN CONNECTION (SINGLE SHEAR)





EMBED PLATE DETAIL
(W16 AND SHALLOWER)



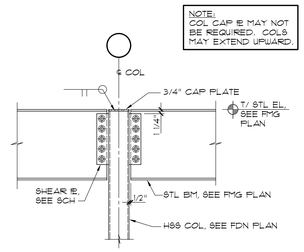
EMBED PLATE DETAIL
(W18 AND DEEPER)

SHEAR CONNECTION SCHEDULE					
BEAM SIZE (SEE PLAN)	NUMBER OF 3/4" DIA A325N BOLTS	ANGLE LENGTH "L"	EMBED PLATE		MAX ULTIMATE END REACTION (KIPS)
			HEIGHT "H"	THICKNESS "T"	3000 PSI
W8, W10	2	5 1/2"	10"	1/2"	29.4
W12	3	8 1/2"	14"	1/2"	29.4
W14, W16	4	11 1/2"	16"	5/8"	32.1
W18	5	14 1/2"	18"	5/8"	50.8
W21	6	17 1/2"	21"	3/4"	53.5
W24	7	20 1/2"	24"	3/4"	53.5
W27	8	23 1/2"	27"	3/4"	53.5
W30	9	26 1/2"	30"	3/4"	53.5

NOTES:
1. FOR BEAMS NOT SHOWN HEREIN, FABRICATOR SHALL DESIGN THE SHEAR CONNECTION BASED ON THE REACTION SHOWN ON THE PLAN.
2. PLATE AND ANGLE MATERIAL SHALL BE ASTM A36.
3. BEAM MATERIAL SHALL BE 50 KSI.
4. FABRICATOR SHALL CHECK BEAM WEB TEAR-OUT (BLOCK SHEAR) IF BEAM IS COPED.
5. PROVIDE WASHER OVER SLOTTED HOLES.
6. INSTALL BOLTS FINGER-TIGHT THEN PEEN THREADS.

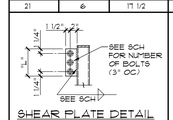
C S07 TYPICAL FLOOR BEAM TO CONCRETE CONNECTION (SINGLE SHEAR)

NOTE:
COL CAP IE MAY NOT BE REQUIRED. COLS MAY EXTEND UPWARD.



W - BEAMS

SINGLE-PLATE SHEAR CONNECTION SCHEDULE (SHOP-WELDED, FIELD-BOLTED)						
BEAM DEPTH (SEE PLAN)	NUMBER OF 3/4" DIA A325N BOLTS	PLATE LENGTH "L" (INCHES)	PLATE THICKNESS (36 KSI)	FILLET WELD SIZE (E70XX)	CAPACITY (KIPS)	
					ASD	LRFD
8, 10	2	5 1/2	5/16	1/4	20.4	30.6
12, 14	3	8 1/2	5/16	1/4	31.8	47.7
16	4	11 1/2	5/16	1/4	42.4	63.6
18	5	14 1/2	5/16	1/4	53.0	79.5
21	6	17 1/2	5/16	1/4	63.6	95.4



SHEAR PLATE DETAIL

NOTES:
1. FOR BEAMS NOT SHOWN HEREIN, THE FABRICATOR SHALL DESIGN THE SHEAR CONNECTION BASED ON THE REACTION SHOWN ON THE PLAN.
2. PROVIDE HORIZ SLOTS IN SHEAR PLATE.
3. BEAMS SHALL BE 50 KSI.
4. PROVIDE HARDENED WASHER OVER SLOTTED HOLES.
5. BOLTS SHALL BE INSTALLED "SNUG-TIGHT".
6. PROVIDE 3/8" MIN END PLATE FOR H8S BEAMS OR END PLATE TO MATCH BEAM THICKNESS, WHICHEVER IS LARGER.

D S07 TYPICAL BEAM TO HSS COL CONNECTION

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PROJECT

Park Place at Douglas
Douglas Ave
Altamonte Springs, Florida

REVISION DATES

DATE
8-30-24

SHEET TITLE
ROOF FRAMING SECTIONS AND DETAILS

SHEET NUMBER
S07

PROJECT NO.
012-24

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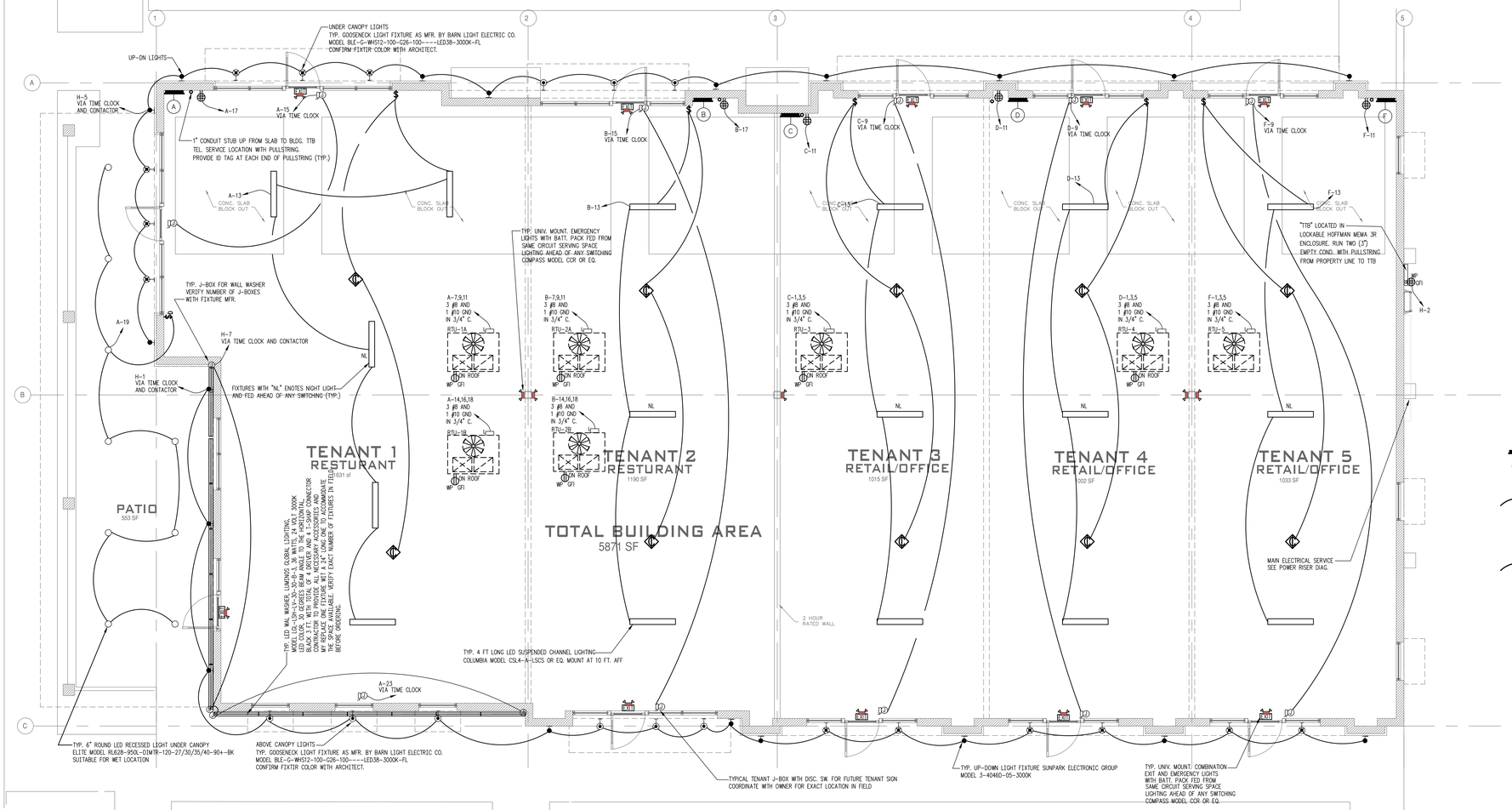


ELECTRICAL PLAN

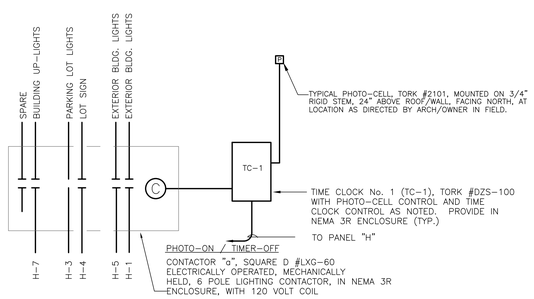
SCALE 1/4" = 1'-0"

REFER TO ARCHITECTURAL ELEVATION FOR EXACT LOCATION OF EXTERIOR LIGHT FIXTURES EXACT LOCATION AND MOUNTING HEIGHT. VERIFY FIXTURE'S COLOR WITH ARCHITECT BEFORE ORDERING.

J-BOX FOR LOT SIGN SEE CIVIL PLAN FOR EXACT LOCATION.

H-4
#10
VIA TIME CLOCK AND CONTACTOR

ALL BRANCH WIRING SERVING EXTERIOR PARKING LOT LIGHTS SHALL BE 2 #10, 1 #10 GROUND IN 1" CONDUIT AT 24" BELOW FINAL GRADE MINIMUM. HOME RUN WIRING SHALL BE 2 #10, 1 #10 GROUND IN 1" CONDUIT AT 24" BELOW FINAL GRADE MINIMUM.
SEE CIVIL PLANS FOR SITE LIGHTING LOCATIONS AND SPECIFICATIONS



LIGHTING CONTROL SCHEMATIC DIAGRAM

NOT TO SCALE

ELECTRICAL SYMBOLS

NOTE: NOT ALL SYMBOLS MAY BE USED.

- EMERGENCY BATTERY EXIT LIGHTING FIXTURE UNIT
- EMERGENCY BATTERY UNIT LIGHTING FIXTURE – WALL MOUNTED
- OCCUPANCY SENSOR SWITCH – WALL MOUNTED
- SINGLE POLE TOGGLE SWITCH – MOUNTED 42" AFF TO CENTERLINE UNLESS OTHERWISE NOTED
  (3) 3 WAY (D) DIMMER SWITCH
  (DLS) DUAL LEVEL SWITCHING
- DUPLEX RECEPTACLE – MOUNTED 18" AFF TO CENTERLINE UNLESS NOTED OTHERWISE
  (GFI) GROUND FAULT INTERRUPTING
  (REF) REFRIGERATOR
  (WP) WEATHERPROOF
- DOUBLE DUPLEX RECEPTACLE – MOUNTED 18" AFF TO CENTERLINE UNLESS NOTED OTHERWISE
- DUPLEX RECEPTACLE – MOUNTED 6" ABOVE COUNTER BACKSPLASH UNLESS NOTED OTHERWISE
- WALL MOUNTED OCCUPANCY SENSOR BY "WATTSTOPPER" PROVIDE DUAL TECHNOLOGY, MODEL "DW-100, DW-103, OR DW-200" SERIES CONTROLS. MOUNT 48" AFF U.O.N.
- CEILING MOUNTED OCCUPANCY SENSOR BY "WATTSTOPPER" PROVIDE DUAL TECHNOLOGY, MODEL "DT-300" SERIES WITH BZ-100 POWER PACKS AS REQUIRED UNLESS OTHERWISE NOTED.
- COMMUNICATIONS/DATA OUTLET – MOUNTED 18" AFF TO C.L. U.N.O.–STUB ONE (1) 3/4" CONDUIT WITH PULL STRING TO TELEPHONE TERMINAL BOARD "TTB". PROVIDE 2 GANG BOX WITH ONE GANG RING (TYPICAL).
- SINGLE POLE TOGGLE SWITCH AND DUPLEX RECEPTACLE IN COMBINATION MOUNTED 42" AFF TO CENTERLINE UNLESS OTHERWISE NOTED
- DUPLEX RECEPTACLE – FLUSH MOUNTED IN CEILING UNLESS NOTED OTHERWISE
- DUPLEX RECEPTACLE – FLUSH MOUNTED IN FLOOR UNLESS NOTED OTHERWISE
- SPECIAL PURPOSE OUTLET OR CONNECTION
- MOTOR
- FUSIBLE DISCONNECT SWITCH
- JUNCTION BOX
- ELECTRICAL PANEL
- (A) (INDICATES DESIGNATION)
- (1) SEE NOTE SYMBOL
- SOLID LINE INDICATES EQUIPMENT ON COMMON CIRCUIT AND/OR CONTROLLED BY COMMON SWITCH. EACH CIRCUIT SHALL CONSIST OF A PHASE CONDUCTOR, NEUTRAL AND GROUND CONDUCTOR. ELECTRICAL CONTRACTOR SHALL PROVIDE NECESSARY SWITCH LEGS IN CONDUIT TO ACHIEVE SWITCHING INDICATED ON PLANS. ELECTRICAL CONTRACTOR MAY COMBINE CIRCUITS INTO A COMMON HOMERUN CONSISTING OF A COMMON NEUTRAL AND GROUND CONDUCTOR AND THREE (3) PHASE CONDUCTORS (A, B, AND C PHASE).
- DOTTED LINE INDICATES EQUIPMENT ON A COMMON CIRCUIT BUT NOT CONTROLLED ON SAME SWITCH DEVICE.

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SEAL PE # 46169

PROJECT

Park Place at Douglas
Douglas Ave
Altamonte Springs Florida

REVISION DATES

DATE
7-30-24

SHEET TITLE
HVAC PLAN, NOTES SCHEDULE, AND DETAILS

SHEET NUMBER
E-1
OF
2

PROJECT NO.
MGE-2435

NOT FOR CONSTRUCTION

MG ENGINEERING, INC.
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PANEL "A"

VOLTAGE: 208Y/120V,3PH,4W — BUS RATING: 400 AMP — MAINS: 400 MLO — MOUNTING: SEE PLANS — 78 AMP LOAD
REMARKS: SINGLE, TUB PANEL, 42 CKTS. EA. TUB, AIC= XXXX
NOTES: "H" INDICATES HACR RATED BREAKER. [ ] INDICATES NON-CONCURRENT A/C LOAD. SIZES BASED ON LARGEST LOAD. "G" INDICATES GFI BREAKER. "*" INDICATES ASSUMED DATA.

LOAD SERVED	LTG	RCPTS	MOTOR	HEAT	CKT BRKR AMP/P	CKT NO.	A	B	C	CKT NO.	CKT BRKR AMP/P	HEAT	MOTOR	RCPTS	LTG	LOAD SERVED
FUTURE PANEL A1					200/3	1	*	–	–	2	200/3					FUTURE PANEL A2
–					–	3	–	*	–	4	–					–
–					–	5	–	–	*	6	–					–
RTU-1A WITH ELECT. HTR.			300	3600	50/3	7	*	–	–	8	150/3					FUTURE PANEL A3
–			300	3600	–	9	–	*	–	10	–					–
–			300	3600	–	11	–	–	*	12	–					–
SPACE LIGHTING	600				20/1	13	*	–	–	14	50/3	3600	300			RTU-1B WITH ELECT. HEATER
SPACE SIGN	1200				20/1	15	–	*	–	16	–	3600	300			–
SPACE TTB RECEPT.		400			20/1	17	–	–	*	18	–	3600	300			–
EXTERIOR WALL WASHER		600			20/1	19	*	–	–	20						
SPACE						21	–	*	–	22						
SPACE SIGN –EAST	1200				20/1	23	–	–	*	24						
						25	*	–	–	26						
						27	–	*	–	28						
						29	–	–	*	30						
						31	*	–	–	32						
						33	–	*	–	34						
						35	–	–	*	36						
						37	*	–	–	38						
						39	–	*	–	40						
						41	–	–	*	42						
SUB TOTALS	3000	1000	900	10800								10800	900	0	0	SUB TOTALS

PHASE LOADING	LTG	RCPTS	MOTOR	HEAT
PHASE A	600	600	600	7200
PHASE B	1200	0	600	7200
PHASE C	1200	400	600	7200
PHASE TOTALS		A 9000	B 9000	C 9400

PANEL NAME: "A" — 3 PH. VOLTS: 208 — PROJECT NAME: PARK PLACE — PROJECT NO.: 2435 — MGE

LTG	RCPTS	MOTOR	HEAT	
3.0	1.0	1.8	21.6	CONNECTED KW TOTALS
1.25	1.0	1.00	1.00	DEMAND
3.8	1.0	1.8	21.6	ADJUSTED KW TOTALS
			27	TOTAL CONNECTED KW
			28.2	TOTAL ADJUSTED KW
			208	THREE PHASE VOLTAGE
			78	TOTAL PANEL AMPERAGE:

PANEL "B"

VOLTAGE: 208Y/120V,3PH,4W — BUS RATING: 400 AMP — MAINS: 400 MLO — MOUNTING: SEE PLANS — 72 AMP LOAD
REMARKS: SINGLE, TUB PANEL, 42 CKTS. EA. TUB, AIC= XXXX
NOTES: "H" INDICATES HACR RATED BREAKER. [ ] INDICATES NON-CONCURRENT A/C LOAD. SIZES BASED ON LARGEST LOAD. "G" INDICATES GFI BREAKER. "*" INDICATES ASSUMED DATA.

LOAD SERVED	LTG	RCPTS	MOTOR	HEAT	CKT BRKR AMP/P	CKT NO.	A	B	C	CKT NO.	CKT BRKR AMP/P	HEAT	MOTOR	RCPTS	LTG	LOAD SERVED
FUTURE PANEL B1					200/3	1	*	–	–	2	200/3					FUTURE PANEL B2
–					–	3	–	*	–	4	–					–
–					–	5	–	–	*	6	–					–
RTU-2A WITH ELECT. HTR.			300	3600	50/3	7	*	–	–	8	150/3					FUTURE PANEL B3
–			300	3600	–	9	–	*	–	10	–					–
–			300	3600	–	11	–	–	*	12	–					–
SPACE LIGHTING	600				20/1	13	*	–	–	14	50/3	3600	300			RTU-2B WITH ELECT. HEATER
SPACE SIGN	1200				20/1	15	–	*	–	16	–	3600	300			–
SPACE TTB RECEPT.		400			20/1	17	–	–	*	18	–	3600	300			–
SPACE						19	*	–	–	20						
SPACE						21	–	*	–	22						
SPACE						23	–	–	*	24						
						25	*	–	–	26						
						27	–	*	–	28						
						29	–	–	*	30						
						31	*	–	–	32						
						33	–	*	–	34						
						35	–	–	*	36						
						37	*	–	–	38						
						39	–	*	–	40						
						41	–	–	*	42						
SUB TOTALS	1800	400	900	10800								10800	900	0	0	SUB TOTALS

PHASE LOADING	LTG	RCPTS	MOTOR	HEAT
PHASE A	600	0	600	7200
PHASE B	1200	0	600	7200
PHASE C	0	400	600	7200
PHASE TOTALS		A 8400	B 9000	C 8200

PANEL NAME: "B" — 3 PH. VOLTS: 208 — PROJECT NAME: PARK PLACE — PROJECT NO.: 2435 — MGE

LTG	RCPTS	MOTOR	HEAT	
1.8	0.4	1.8	21.6	CONNECTED KW TOTALS
1.25	0.4	1.00	1.00	DEMAND
2.3	0.4	1.8	21.6	ADJUSTED KW TOTALS
			26	TOTAL CONNECTED KW
			26.1	TOTAL ADJUSTED KW
			208	THREE PHASE VOLTAGE
			72	TOTAL PANEL AMPERAGE:

PANEL "C"

VOLTAGE: 208Y/120V,3PH,4W — BUS RATING: 200 AMP — MAINS: 200 MLO — MOUNTING: SEE PLANS — 31 AMP LOAD
REMARKS: SINGLE, TUB PANEL, 42 CKTS. EA. TUB, AIC= XXXX
NOTES: "H" INDICATES HACR RATED BREAKER. [ ] INDICATES NON-CONCURRENT A/C LOAD. SIZES BASED ON LARGEST LOAD. "G" INDICATES GFI BREAKER. "*" INDICATES ASSUMED DATA.

LOAD SERVED	LTG	RCPTS	MOTOR	HEAT	CKT BRKR AMP/P	CKT NO.	A	B	C	CKT NO.	CKT BRKR AMP/P	HEAT	MOTOR	RCPTS	LTG	LOAD SERVED
RTU-3 WITH ELECT. HTR.			300	2500	40/3	1	*	–	–	2						SPACE
–			300	2500	–	3	–	*	–	4						SPACE
–			300	2500	–	5	–	–	*	6						SPACE
SPACE						7	*	–	–	8						SPACE
SPACE SIGN	1200				20/1	9	–	*	–	10						SPACE
SPACE TTB RECEPT.		400			20/1	11	–	–	*	12						SPACE
SPACE LIGHTING	600				20/1	13	*	–	–	14						SPACE
SPACE						15	–	*	–	16						SPACE
SPACE						17	–	–	*	18						SPACE
SPACE						19	*	–	–	20						SPACE
SPACE						21	–	*	–	22						SPACE
SPACE						23	–	–	*	24						SPACE
SPACE						25	*	–	–	26						SPACE
SPACE						27	–	*	–	28						SPACE
SPACE						29	–	–	*	30						SPACE
SPACE						31	*	–	–	32						SPACE
SPACE						33	–	*	–	34						SPACE
SPACE						35	–	–	*	36						SPACE
SPACE						37	*	–	–	38						SPACE
SPACE						39	–	*	–	40						SPACE
SPACE						41	–	–	*	42						SPACE
SUB TOTALS	1800	400	900	7500								0	0	0	0	SUB TOTALS

PHASE LOADING	LTG	RCPTS	MOTOR	HEAT
PHASE A	600	0	300	2500
PHASE B	1200	0	300	2500
PHASE C	0	400	300	2500
PHASE TOTALS		A 3400	B 4000	C 3200

PANEL NAME: "C" — 3 PH. VOLTS: 208 — PROJECT NAME: PARK PLACE — PROJECT NO.: 2435 — MGE

LTG	RCPTS	MOTOR	HEAT	
1.8	0.4	0.9	7.5	CONNECTED KW TOTALS
1.25	0.4	1.00	1.00	DEMAND
2.3	0.4	0.9	7.5	ADJUSTED KW TOTALS
			11	TOTAL CONNECTED KW
			11.1	TOTAL ADJUSTED KW
			208	THREE PHASE VOLTAGE
			31	TOTAL PANEL AMPERAGE:

PANEL "D"

VOLTAGE: 208Y/120V,3PH,4W — BUS RATING: 200 AMP — MAINS: 200 MLO — MOUNTING: SEE PLANS — 31 AMP LOAD
REMARKS: SINGLE, TUB PANEL, 42 CKTS. EA. TUB, AIC= XXXX
NOTES: "H" INDICATES HACR RATED BREAKER. [ ] INDICATES NON-CONCURRENT A/C LOAD. SIZES BASED ON LARGEST LOAD. "G" INDICATES GFI BREAKER. "*" INDICATES ASSUMED DATA.

LOAD SERVED	LTG	RCPTS	MOTOR	HEAT	CKT BRKR AMP/P	CKT NO.	A	B	C	CKT NO.	CKT BRKR AMP/P	HEAT	MOTOR	RCPTS	LTG	LOAD SERVED
RTU-4 WITH ELECT. HTR.			300	2500	40/3	1	*	–	–	2						SPACE
–			300	2500	–	3	–	*	–	4						SPACE
–			300	2500	–	5	–	–	*	6						SPACE
SPACE						7	*	–	–	8						SPACE
SPACE SIGN	1200				20/1	9	–	*	–	10						SPACE
SPACE TTB RECEPT.		400			20/1	11	–	–	*	12						SPACE
SPACE LIGHTING	600				20/1	13	*	–	–	14						SPACE
SPACE						15	–	*	–	16						SPACE
SPACE						17	–	–	*	18						SPACE
SPACE						19	*	–	–	20						SPACE
SPACE						21	–	*	–	22						SPACE
SPACE						23	–	–	*	24						SPACE
SPACE						25	*	–	–	26						SPACE
SPACE						27	–	*	–	28						SPACE
SPACE						29	–	–	*	30						SPACE
SPACE						31	*	–	–	32						SPACE
SPACE						33	–	*	–	34						SPACE
SPACE						35	–	–	*	36						SPACE
SPACE						37	*	–	–	38						SPACE
SPACE						39	–	*	–	40						SPACE
SPACE						41	–	–	*	42						SPACE
SUB TOTALS	1800	400	900	7500								0	0	0	0	SUB TOTALS

PHASE LOADING	LTG	RCPTS	MOTOR	HEAT
PHASE A	600	0	300	2500
PHASE B	1200	0	300	2500
PHASE C	0	400	300	2500
PHASE TOTALS		A 3400	B 4000	C 3200

PANEL NAME: "D" — 3 PH. VOLTS: 208 — PROJECT NAME: PARK PLACE — PROJECT NO.: 2435 — MGE

LTG	RCPTS	MOTOR	HEAT	
1.8	0.4	0.9	7.5	CONNECTED KW TOTALS
1.25	0.4	1.00	1.00	DEMAND
2.3	0.4	0.9	7.5	ADJUSTED KW TOTALS
			11	TOTAL CONNECTED KW
			11.1	TOTAL ADJUSTED KW
			208	THREE PHASE VOLTAGE
			31	TOTAL PANEL AMPERAGE:

PANEL "H" (HOUSE PANEL)

VOLTAGE: 208Y/120V,3PH,4W — BUS RATING: 60 AMP — MAINS: 60A MLO — MOUNTING: SEE PLANS — 14 AMP LOAD
REMARKS: SINGLE, TUB PANEL, 24 CKTS. EA. TUB, AIC =XXXX
NOTES: "H" INDICATES HACR RATED BREAKER. [ ] INDICATES NON-CONCURRENT A/C LOAD. SIZES BASED ON LARGEST LOAD. "G" INDICATES GFI BREAKER. "*" INDICATES ASSUMED DATA.

LOAD SERVED	LTG	RCPTS	MOTOR	HEAT	CKT BRKR AMP/P	CKT NO.	A	B	C	CKT NO.	CKT BRKR AMP/P	HEAT	MOTOR	RCPTS	LTG	LOAD SERVED
BUILDING EXTERIOR LTG.	800				20/1	1	*	–	–	2	20/1			400		RECEPT. TTB
PARKING LOT LIGHTS	600				20/1	3	–	*	–	4	20/1				1200	LOT SIGN
BUILDING EXTERIOR LTG.	800				20/1	5	–	–	*	6	20/1			400		TIMECLOCK & CONTACTOR
SPACE						7	*	–	–	8						SPACE
SPACE						9	–	*	–	10						SPACE
SPACE						11	–	–	*	12						SPACE
SPACE						13	*	–	–	14						SPACE
SPACE						15	–	*	–	16						SPACE
SPACE						17	–	–	*	18						SPACE
SPACE						19	*	–	–	20						SPACE
SPACE						21	–	*	–	22						SPACE
SPACE						23	–	–	*	24						SPACE
SUB TOTALS	2200	0	0	0								0	0	800	1200	SUB TOTALS

PHASE LOADING	LTG	RCPTS	MOTOR	HEAT
PHASE A	800	400	0	0
PHASE B	1800	0	0	0
PHASE C	800	400	0	0
PHASE TOTALS		A 1200	B 1800	C 1200

PANEL NAME: "H" — 3 PH. VOLTS: 208 — PROJECT NAME: PARK PLACE — PROJECT NO.: 2435 — MGE

LTG	RCPTS	MOTOR	HEAT	
3.4	0.8	0.0	0.0	CONNECTED KW TOTALS
1.25	0.8	1.00	1.00	DEMAND
4.3	0.8	0.0	0.0	ADJUSTED KW TOTALS
			4	TOTAL CONNECTED KW
			5.1	TOTAL ADJUSTED KW
			208	THREE PHASE VOLTAGE
			14	TOTAL PANEL AMPERAGE:

PANEL "D"

VOLTAGE: 208Y/120V,3PH,4W — BUS RATING: 200 AMP — MAINS: 200 MLO — MOUNTING: SEE PLANS — 31 AMP LOAD
REMARKS: SINGLE, TUB PANEL, 42 CKTS. EA. TUB, AIC= XXXX
NOTES: "H" INDICATES HACR RATED BREAKER. [ ] INDICATES NON-CONCURRENT A/C LOAD. SIZES BASED ON LARGEST LOAD. "G" INDICATES GFI BREAKER. "*" INDICATES ASSUMED DATA.

LOAD SERVED	LTG	RCPTS	MOTOR	HEAT	CKT BRKR AMP/P	CKT NO.	A	B	C	CKT NO.	CKT BRKR AMP/P	HEAT	MOTOR	RCPTS	LTG	LOAD SERVED
RTU-5 WITH ELECT. HTR.			300	2500	40/3	1	*	–	–	2						SPACE
–			300	2500	–	3	–	*	–	4						SPACE
–			300	2500	–	5	–	–	*	6						SPACE
SPACE						7	*	–	–	8						SPACE
SPACE SIGN	1200				20/1	9	–	*	–	10						SPACE
SPACE TTB RECEPT.		400			20/1	11	–	–	*	12						SPACE
SPACE LIGHTING	600				20/1	13	*	–	–	14						SPACE
SPACE						15	–	*	–	16						SPACE
SPACE						17	–	–	*	18						SPACE
SPACE						19	*	–	–	20						SPACE
SPACE						21	–	*	–	22						SPACE
SPACE						23	–	–	*	24						SPACE
SPACE						25	*	–	–	26						SPACE
SPACE						27	–	*	–	28						SPACE
SPACE						29	–	–	*	30						SPACE
SPACE						31	*	–	–	32						SPACE
SPACE						33	–	*	–	34						SPACE
SPACE						35	–	–	*	36						SPACE
SPACE						37	*	–	–	38						SPACE
SPACE						39	–	*	–	40						SPACE
SPACE						41	–	–	*	42						SPACE
SUB TOTALS	1800	400	900	7500								0	0	0	0	SUB TOTALS

PHASE LOADING	LTG	RCPTS	MOTOR	HEAT
PHASE A	600	0	300	2500
PHASE B	1200	0	300	2500
PHASE C	0	400	300	2500
PHASE TOTALS		A 3400	B 4000	C 3200

PANEL NAME: "D" — 3 PH. VOLTS: 208 — PROJECT NAME: PARK PLACE — PROJECT NO.: 2435 — MGE

LTG	RCPTS	MOTOR	HEAT	
1.8	0.4	0.9	7.5	CONNECTED KW TOTALS
1.25	0.4	1.00	1.00	DEMAND
2.3	0.4	0.9	7.5	ADJUSTED KW TOTALS
			11	TOTAL CONNECTED KW
			11.1	TOTAL ADJUSTED KW
			208	THREE PHASE VOLTAGE
			31	TOTAL PANEL AMPERAGE:

FAULT CURRENT NOTES:

THERE SHALL BE A U.L. SERIES RATING BETWEEN THE LOADSIDE DEVICE IN THE SERVICE ENTRANCE EQUIPMENT AND THE DOWNSTREAM BREAKERS IN THE PANEL BASED ON THE AVAILABLE FAULT CURRENT (INCLUDING MOTOR CONTRIBUTION) AT THE LINE SIDE OF THE BREAKERS.
CONTRACTOR SHALL SUBMIT ALL SERIES RATING DATA AS A PART OF THE SERVICE AND DISTRIBUTION EQUIPMENT SHOP DRAWING SUBMITTAL.
AS AN OPTION THE CONTRACTOR MAY PROVIDE BREAKERS WHICH EXCEED THE AVAILABLE FAULT CURRENT AS SHOWN ON THE PANEL CONNECTION POINT. IF THIS OPTION IS SELECTED, PROVIDE A.I.C. RATING DATA AS A PART OF THE SERVICE AND DISTRIBUTION SHOP DRAWINGS.

GENERAL PROJECT NOTES:

THE COMPLETE ELECTRICAL INSTALLATION SHALL COMPLY WITH NFPA 70–2020, NATIONAL ELECTRICAL CODE AND F.B.C. 8 TH EDITION , 2023.

EQUIPMENT/SYSTEM IDENTIFICATION

INSTALL ENGRAVED PLASTIC LAMINATE SIGN ON EACH MAJOR UNIT OF ELECTRICAL EQUIPMENT. EXCEPT AS OTHERWISE INDICATED, PROVIDE SINGLE LINE OF TEXT, 1/2 INCH HIGH LETTERING ON 1–1/2 INCH HIGH SIGN (2 INCH HIGH WHERE 2 LINES ARE REQUIRED), WHITE LETTERING IN BLACK FIELD. PROVIDE TEXT MATCHING TERMINOLOGY AND NUMBERING OF THE CONTRACT DOCUMENTS AND SHOP DRAWINGS.

PROVIDE SIGNS FOR EACH UNIT OF THE FOLLOWING CATEGORIES OF ELECTRICAL WORK:

MOTOR STARTERS.
DISCONNECT SWITCHES.
PANELBOARDS
TRANSFORMERS

INSCRIPTIONS SHALL INDICATE THE DEVICE SERVED I.E. "PANEL LI", "HVAC UNIT #1", ETC.

UPDATE PANELBOARD DIRECTORIES TO ACCURATELY INDICATE NEW EQUIPMENT BEING SERVED AND EQUIPMENT BEING REMOVED.

TWO–SIDED TAPE AND DYNAMO TYPE ADHESIVES ARE NOT ACCEPTABLE.

ELECTRICAL DEMOLITION AND ALTERATIONS

THE EXISTING BUILDING IS TO REMAIN IN OPERATION DURING CONSTRUCTION. COORDINATE ALL WORK THAT WILL INTERFERE WITH THE PRESENT OPERATION OF THE FACILITY WITH THE OWNER.

PROVIDE ALL CORING THAT IS REQUIRED FOR ELECTRICAL WORK. OBTAIN PRIOR APPROVAL FROM THE ARCHITECT/ENGINEER IF ANY CORING IS REQUIRED THROUGH STRUCTURAL MEMBERS.

ALL CONDUIT AND WIRING REQUIRED IN EXISTING CONSTRUCTION SHALL BE CONCEALED EXCEPT CONDUIT MAY BE RUN EXPOSED IN UNFINISHED ROOMS SUCH AS EQUIPMENT AND MECHANICAL ROOMS. PROVIDE ALL CUTTING AND PATCHING REQUIRED FOR ELECTRICAL WORK.

ELECTRICAL METALLIC TUBING (EMT)

FS WW–C–563, ANSI C80.3 AND UL 797.
MINIMUM CONDUIT SIZE 1/2 INCH.
ANSI C80.4, STEEL FITTINGS.
THREADED, INSULATED THROAT, GLAND COMPRESSION OR SET SCREW TYPE.
RAIN AND CONCRETE TIGHT.
DIECAST FITTINGS ARE NOT ACCEPTABLE.

LIQUID–TIGHT FLEXIBLE CONDUIT

PROVIDE UL–LISTED LIQUID–TIGHT FLEXIBLE METAL CONDUIT. MINIMUM SIZE 1/2 INCH. PROVIDE CADMIUM PLATED MALLEABLE IRON FITTINGS WITH COMPRESSION TYPE STEEL FERRULE AND NEOPRENE GASKET SEALING RINGS. LIQUID TIGHT.

FLEXIBLE STEEL CONDUIT

UL–1 FORMED FROM CONTINUOUS LENGTH OF SPIRALLY WOUND, INTERLOCKED HOT–DIP GALVANIZED STEEL. MINIMUM SIZE 1/2 INCH.
PROVIDE SQUEEZE TYPE, MALLEABLE IRON CADMIUM PLATED CONDUIT FITTINGS FOR USE WITH FLEXIBLE STEEL CONDUIT OF THREADLESS HINGE TYPE; THREADED; GROUNDING TYPE; INSULATED THROAT.

CONDUIT INSTALLATION

INSTALL CONDUIT AND TUBING PRODUCTS IN ACCORDANCE WITH NEC, MANUFACTURER'S WRITTEN INSTRUCTIONS, AND APPLICABLE STANDARDS.
CONNECTIONS TO MOTORS AND EQUIPMENT SUBJECT TO VIBRATION:

FLEXIBLE STEEL CONDUIT NOT OVER 3 FEET LONG WHERE CONCEALED IN CABINET, OR WHERE EXPOSED IN MECHANICAL AND UTILITY AREAS AND NOT SUBJECTED TO MOISTURE, DIRT, AND FUMES.

LIQUID–TIGHT FLEXIBLE CONDUIT NOT OVER 3 FEET LONG WHERE EXPOSED IN FINISHED AREAS OR WHERE SUBJECT TO MOISTURE, DIRT, FUMES, OIL, CORROSIVE ATMOSPHERE, EXPOSED OR CONCEALED, WITH CONNECTORS TO ASSURE A LIQUID–TIGHT, PERMANENTLY GROUNDED CONNECTION. LOCATE SO IT IS LEAST SUBJECT TO PHYSICAL ABUSE.

WIRE AND CABLE

ALL CONDUCTOR AND CONDUIT SIZES ARE BASED ON THE USE OF COPPER CONDUCTORS. ALL CONDUCTORS SHALL BE COPPER.

TYPE THHN/THWN, SINGLE CONDUCTOR, SIZE AS INDICATED ON DRAWINGS.

WIRE AND CABLE IDENTIFICATION

COLOR CODE CONDUCTOR INSULATION AS FOLLOWS:

CONDUCTOR	SYSTEM VOLTAGE 208Y/120	SYSTEM VOLTAGE 480Y/277V
PHASE A	BLACK	BROWN
PHASE B	RED	PURPLE
PHASE C	BLUE	YELLOW
NEUTRAL	WHITE	GRAY
GROUND	GREEN	GREEN W/ TRACER

IF EXISTING BUILDING CONDUCTOR COLOR CODING IS DIFFERENT THAN THAT INDICATED ABOVE, CONDUCTOR COLOR CODING SHALL MATCH EXISTING.

INSTALL LABEL TAGS ON WIRE AND CABLE IN JUNCTION BOXES, PULL BOXES, WIREWAYS, AND WIRING GUTTERS OF PANELS. TAGS SHALL IDENTIFY WIRE OR CABLE NUMBER AND/OR EQUIPMENT SERVED AS SHOWN ON DRAWINGS.

JUNCTION AND PULL BOXES

FABRICATE FROM CODE GAUGE GALVANIZED STEEL, WITH COVERS HELD IN PLACE BY CORROSION RESISTANT MACHINE SCREWS.

SIZE AS REQUIRED BY CODE FOR NUMBER OF CONDUITS AND CONDUCTORS ENTERING AND LEAVING BOX.

PROVIDE WITH WELDED SEAMS, WHERE APPLICABLE, AND EQUIP WITH CORROSION–RESISTANT NUTS, BOLTS, SCREWS, AND WASHERS.

INSTALLATION

INSTALL ELECTRICAL BOXES IN COMPLIANCE WITH NEC REQUIREMENTS, IN ACCORDANCE WITH THE MANUFACTURER'S WRITTEN INSTRUCTIONS AND WITH RECOGNIZED INDUSTRY PRACTICES TO ENSURE THAT THE BOXES SERVE THE INTENDED PURPOSES.

INSTALL KNOCKOUT CLOSURES TO CAP UNUSED KNOCKOUT HOLES WHERE BLANKS HAVE BEEN REMOVED.

LOCATE BOXES SO AS TO ASSURE ACCESSIBILITY OF ELECTRICAL WIRING.

SECURE BOXES RIGIDLY TO THE SUBSTRATE UPON WHICH THEY ARE BEING MOUNTED. DO NOT SUPPORT FROM CONDUIT.

GENERAL DUTY DISCONNECT SWITCHES

PROVIDE SURFACE MOUNTED, GENERAL DUTY TYPE SHEET STEEL ENCLOSED SAFETY SWITCHES, THAT ARE FUSIBLE OR NON–FUSIBLE, WITH VOLTAGE RATING FOR CIRCUIT, AMPERAGE, AND NUMBER OF POLES AS INDICATED ON DRAWINGS. SWITCHES SHALL BE QUICK MAKE, QUICK BREAK TYPE; CONSTRUCTED SO THAT SWITCH BLADES ARE VISIBLE IN 'OFF' POSITION WITH DOOR OPEN. EQUIP WITH OPERATING HANDLE WHICH IS INTEGRAL PART OF ENCLOSURE BASE AND WHOSE OPERATING POSITION IS EASILY RECOGNIZABLE, AND IS CAPABLE OF BEING PADLOCKED IN 'OFF' POSITION. SWITCHES SHALL HAVE A COVER INTERLOCK TO PREVENT UNAUTHORIZED OPENING OF THE SWITCH DOOR WHEN THE HANDLE IS IN THE "ON" POSITION. CONSTRUCT CURRENT CARRYING PARTS OF HIGH CONDUCTIVITY COPPER, WITH SILVER– TUNGSTEN TYPE SWITCH CONTACTS. PROVIDE POSITIVE PRESSURE TYPE REINFORCED FUSE CLIPS FOR FUSIBLE SWITCHES. PROVIDE NEMA 1 OR 3R ENCLOSURE, AS REQUIRED, WITH STAMPED ENCLOSURE KNOCKOUTS. RMS SHORT CIRCUIT RATING SHALL BE 200,000 AMPS WITH R FUSES.

INSTALLATION

INSTALL IN ACCORDANCE WITH MANUFACTURER'S WRITTEN INSTRUCTIONS, APPLICABLE REQUIREMENTS OF NEC AND NECA'S "STANDARD OF INSTALLATION" AND IN ACCORDANCE WITH RECOGNIZED INDUSTRY PRACTICES.

LOCATE DISCONNECT SWITCHES AS SHOWN OR CALLED OUT ON DRAWINGS AND AS REQUIRED BY NEC.

GROUNDING

GROUND ELECTRICAL SYSTEMS AND EQUIPMENT AS REQUIRED BY NEC.

INSTALL GROUNDING CONDUCTOR IN NONMETALLIC OR FLEXIBLE CONDUIT TO COMPLETE EQUIPMENT GROUND CONTINUITY.

INSTALL A SEPARATE EQUIPMENT GROUNDING CONDUCTOR SIZED PER NEC TABLE 250–95 IN ALL RACEWAYS.

BRANCH CIRCUITS

DO NOT USE WIRE SMALLER THAN NO. 12 AWG (UNLESS OTHERWISE NOTED) FOR BRANCH CIRCUIT WIRING, INCLUDING MOTOR CIRCUITS.

VOLTAGE DROP FOR BRANCH CIRCUITS AND FEEDER CIRCUIT COMBINED SHALL NOT EXCEED REQUIREMENTS OF NEC ARTICLE 215.

SIZE CONDUIT, OUTLET BOXES, AND OTHER RACEWAY SYSTEM COMPONENTS IN ACCORDANCE WITH NEC REQUIREMENTS AS MINIMUM.

MOTOR AND EQUIPMENT WIRING

FURNISH AND INSTALL MOTOR CIRCUITS IN ACCORDANCE WITH DRAWINGS AND CODE REQUIREMENTS, FROM SOURCE OF SUPPLY TO ASSOCIATED MOTOR STARTER, AND FROM STARTER TO MOTOR TERMINAL BOX, INCLUDING NECESSARY AND REQUIRED INTERMEDIATE CONNECTIONS.

CONDUCTOR AND CONDUIT SIZE FOR MOTOR BRANCH CIRCUITS, IF SHOWN ON DRAWINGS, ARE SIZED FOR MOTOR REQUIREMENT ONLY. CONTRACTOR MAY, AT HIS OPTION, INCLUDE ASSOCIATED CONTROL CONDUCTORS IN SAME CONDUIT PROVIDING THE CONDUIT SIZE IS ADJUSTED TO MEET CODE REQUIREMENTS FOR PERCENTAGE OF FILL.

MOTORS SHALL HAVE PROPER FEEDERS AS PER NEC AND NAMEPLATE RATINGS. VERIFY RATINGS OF MOTORS AND INSTALLING PROPER BRANCH CIRCUITS.

EQUIPMENT CONNECTIONS

OBTAIN MANUFACTURER'S WIRING DIAGRAMS OF ELECTRICAL EQUIPMENT FURNISHED WITH EQUIPMENT AND DO NOT PROCEED TO WIRE EQUIPMENT WITHOUT THIS INFORMATION.

VERIFY ALL EQUIPMENT FEEDER SIZES, OVERCURRENT PROTECTION SIZES, ETC. RECOMMENDED BY EQUIPMENT MANUFACTURER BEFORE INSTALLING. MAKE EQUIPMENT CONNECTIONS WITH FLEXIBLE CONDUIT OR LIQUID–TIGHT FLEXIBLE METALLIC CONDUIT. PROPERLY GROUND NON–CURRENT CARRYING METAL PARTS OF EQUIPMENT.

COORDINATE WORK WITH THE OTHER TRADES SUCH THAT THE OPERATION OF MECHANICAL EQUIPMENT WILL BE AS DESCRIBED IN MECHANICAL SPECIFICATIONS.

CHECK DRAWINGS AND SPECIFICATIONS OF OTHER DIVISIONS OF WORK FOR EQUIPMENT AND WORK WHICH MUST BE INCLUDED WHETHER OR NOT SHOWN ON ELECTRICAL DRAWINGS, IN ORDER TO PROVIDE A COMPLETE ELECTRICAL INSTALLATION.

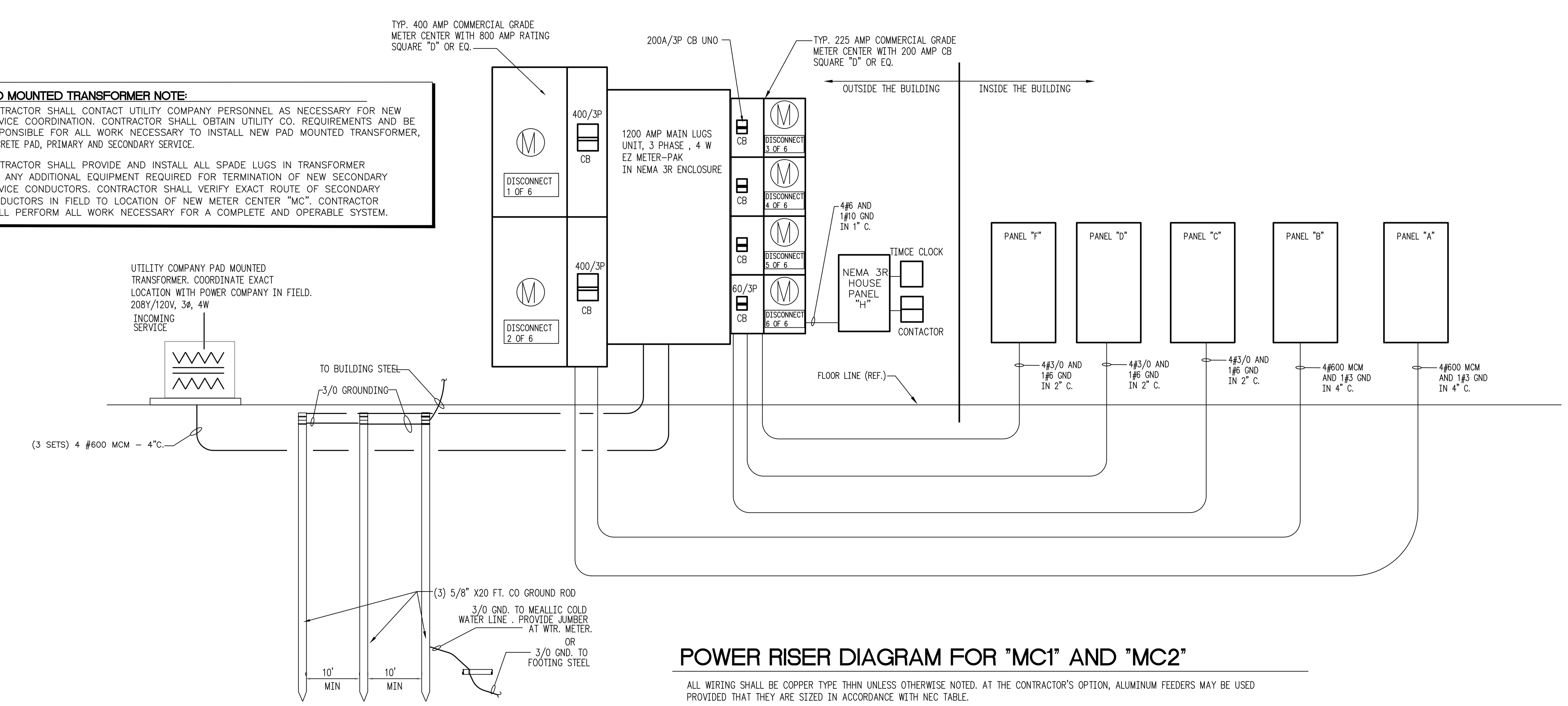
UNLESS OTHERWISE INDICATED ON DRAWINGS OR IN SPECIFICATIONS, EQUIPMENT SHALL BE FURNISHED, SET IN PLACE, AND CONNECTED AS NECESSARY AND PREPARED FOR OPERATION AS SPECIFIED IN OTHER SECTIONS. PROVIDE FINAL CONNECTION AND PROPER DISCONNECTING MEANS SHALL BE PROVIDED.

MOTOR CONNECTIONS SHALL BE MADE BY SPLIT–BOLT TYPE CONNECTORS USING PROPER TOOLS AND FITTINGS TO ASSURE GOOD ELECTRICAL CONTINUITY AND LOW RESISTANCE JOINT.

PAD MOUNTED TRANSFORMER NOTE:

CONTRACTOR SHALL CONTACT UTILITY COMPANY PERSONNEL AS NECESSARY FOR NEW SERVICE COORDINATION. CONTRACTOR SHALL OBTAIN UTILITY CO. REQUIREMENTS AND BE RESPONSIBLE FOR ALL WORK NECESSARY TO INSTALL NEW PAD MOUNTED TRANSFORMER, CONCRETE PAD, PRIMARY AND SECONDARY SERVICE.

CONTRACTOR SHALL PROVIDE AND INSTALL ALL SPADE LUGS IN TRANSFORMER AND ANY ADDITIONAL EQUIPMENT REQUIRED FOR TERMINATION OF NEW SECONDARY SERVICE CONDUCTORS. CONTRACTOR SHALL VERIFY EXACT ROUTE OF SECONDARY CONDUCTORS IN FIELD TO LOCATION OF NEW METER CENTER "MC". CONTRACTOR SHALL PERFORM ALL WORK NECESSARY FOR A COMPLETE AND OPERABLE SYSTEM.



POWER RISER DIAGRAM FOR "MC1" AND "MC2"

ALL WIRING SHALL BE COPPER TYPE THHN UNLESS OTHERWISE NOTED. AT THE CONTRACTOR'S OPTION, ALUMINUM FEEDERS MAY BE USED PROVIDED THAT THEY ARE SIZED IN ACCORDANCE WITH NEC TABLE.

RUN 3/0 CU GRND. FROM WATER PIPE BOLTED CONNECTION TO THREE 20 FT. LONG X 3/4" DRIVEN COPPERWELD GROUNDROD MIN. .10 FT. APART.

PERFORM GROUND TEST FOR EACH ROD PRIOR TO CONNECTING THE GROUND CONDUCTOR.

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PROJECT
Park Place at Douglas
Douglas Ave
Altamonte Springs Florida

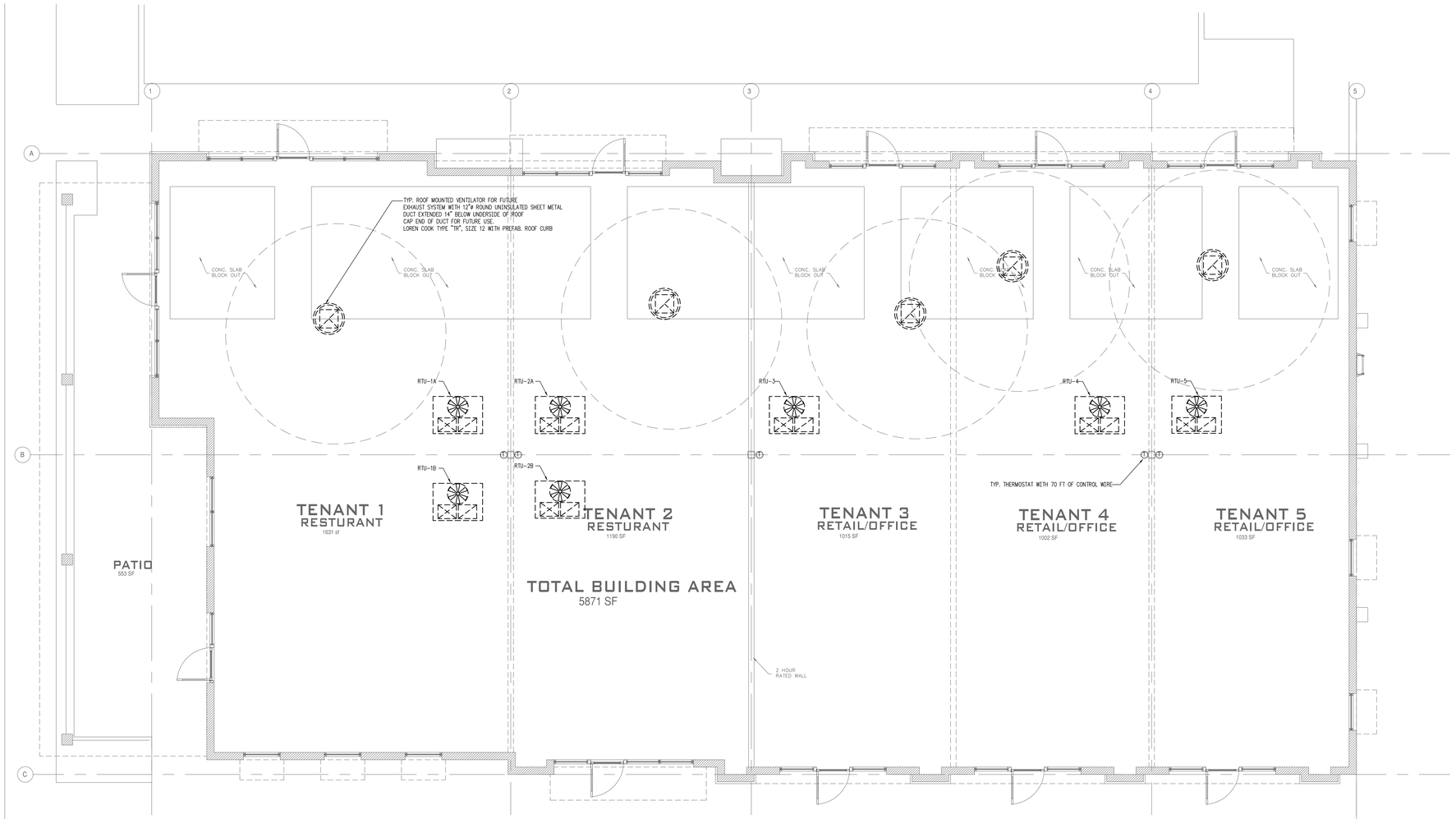
REVISION DATES

DATE 7–30–24

SHEET TITLE
PANEL SCHEDULES, ELECT. NOTES, AND RISER DIAG.

SHEET NUMBER
E–2
OF
2

PROJECT NO.
MGE–2435



HVAC PLAN
SCALE 1/4" = 1'-0"

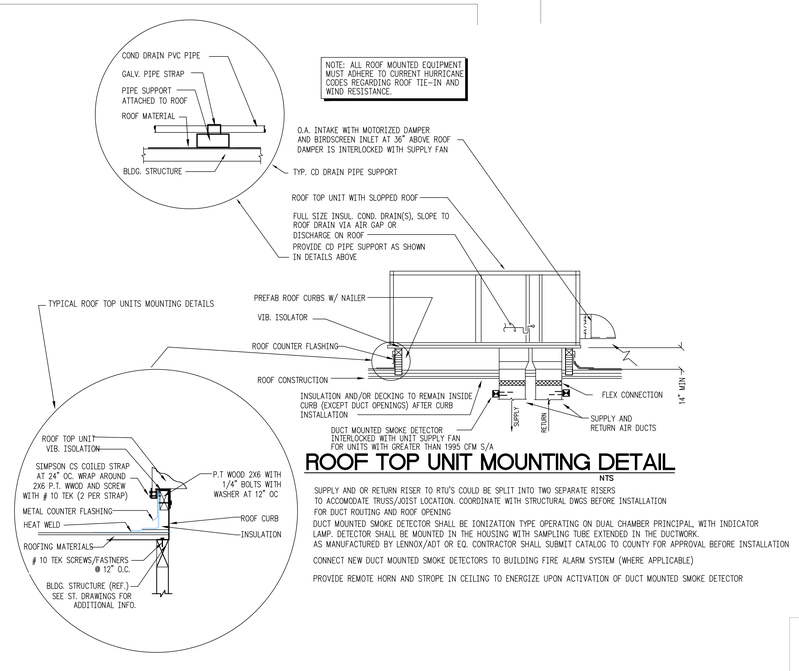
MECHANICAL GENERAL NOTES:

1. PROVIDE COMPLETE HVAC SYSTEMS TO MEET ALL CODES. HVAC SUBCONTRACTOR IS RESPONSIBLE FOR SUBMITTING A TOTALLY INCLUSIVE BID WHICH COVERS ALL WORK NECESSARY TO MEET ALL CODES WHETHER SHOWN ON DRAWINGS OR NOT.
2. OBTAIN ALL NECESSARY PERMITS AND PAY ALL FEES AND COSTS.
4. COORDINATE WITH ALL OTHER TRADES BEFORE STARTING INSTALLATION. MAKE NECESSARY VARIATIONS AT THAT TIME TO FIT INTO SPACE CONDITIONS AT NO EXTRA COST TO THE OWNER.
5. PROVIDE FIRE STATS/SMOKE DETECTORS AS SHOWN OF ALL AIR HANDLERS/RTU'S. FIRE STAT/DETECTOR SHALL BE INTERLOCKED WITH AHU/RTU SUPPLY FAN
6. HVAC SUBCONTRACTOR TO COORDINATE WITH ELECTRICAL SUBCONTRACTOR PRIOR TO STARTING ANY WORK OR ORDERING ANY MATERIALS TO INSURE COMPLETE COMPATIBILITY WITH ELECTRICAL SYSTEMS AND COMPLIANCE WITH ALL CODES.
8. CLEAN AND VERIFY FLOW OF CONDENSATE DRAIN LINE FROM EACH AHU/RTU.
9. GREASE AND OIL ALL EQUIPMENT AND REPLACE ALL FILTERS BEFORE TURNING JOB OVER TO OWNER.
10. DUCTS AND/OR DIFFUSERS ARE SHOWN (ID APPLICABLE) TO CLEAR LIGHT FIXTURES, HOWEVER, SOME SHIFTING MAY BE REQUIRED – VERIFY IN FIELD AND COORDINATE WITH ARCH. REFLECTING CEILING PLAN BEFORE INSTALLATION
11. PROVIDE FLEX CONNECTIONS FOR DUCTWORK AT AHU/RTU CONNECTION. USE FLEXIBLE CONNECTOR FABRICATED FROM 30 POUND NEOPRENE COATED CLOTH.
12. DUCTWORK SHALL BE FURNISHED AND INSTALLED IN SIZES AND LAYOUT AS SHOWN. DUCT DIMENSIONS SHOWN ARE CLEAR INSIDE DIMENSIONS. DUCTWORK SHALL BE CONSTRUCTED OF 1.5 INCH THICK RIGID FOIL-BACK FIBERGLAS DUCT BOARD ,23 ∠ AT 75 F. ROUND DUCTWORK SHALL BE A MINIMUM ONE INCH THICK FOIL COVERED FIBERGLAS WITH A MINIMUM ∠ OF ,23 AT 75 F. DUCT CONNECTORS SHALL BE A MINIMUM OF ONE INCH THICK FIBERGLAS WITH COLD-ROLLED FLAT STEEL SPIRAL, CORROSION RESISTANT COATED, AND MECHANICALLY LOCKED TO FABRIC COMPONENT ALL ENCLOSED IN VINYL VAPOR BARRIER. BE IN ACCORDANCE WITH THE RECOMMENDATIONS OF THE LATEST EDITION OF SMACNA, AND SHALL COMPLY WITH THE REQUIREMENTS OF NFPA 90A AND HAVE A MINIMUM FLAME SPREAD RATING OF NOT OVER 25. JOINTS SHALL BE MADE WITH GLASS FABRIC AND MASTIC
13. PROVIDE SPLITTER OR BALANCING DAMPERS AND SHALL BE OF SUFFICIENT GAUGE TO PREVENT BUCKLING OR VIBRATING, AND SHALL BE OPERATED BY A QUADRANT DAMPER ADJUSTER WITH LOCKING FEATURE WHICH WILL HOLD DAMPER SECURELY IN POSITION AT THE DESIRED SETTING.

ROOF TOP PACKAGED UNIT SCHEDULE

Mark	RTU-1A,1B,2A,2B	RTU-3,4,5
Area Served	SEE PLAN	SEE PLAN
Evaporator Section	--	--
Supply Air (CFM)	2000	1600
Return / Outside Air (CFM)	1900/100	1500/100
Ext. Static Pressure	0.5	0.5
Fan Motor (MAX. HP)	1	1
Entering Air (DB / WB)	AHRI	AHRI
Total Cooling Cap. (MBH)	57.5	49.5
Total Sensible Cap. (MBH)	40	34.4
Electric Heating (KW)	10.8	7.5
No. of Stages – Volt/Ph	1-208/3	1-208/3
Option		
Unit Configuration	VERTICAL DISCHARGE	VERTICAL DISCHARGE
SEER/SEER2 (MIN.)	**14.0/13.4**	**14/13.4**
Condenser Fan Motor (HP)	0.33	0.33
No. of Condenser Fans	1	1
No. of Compressors	(1) SCROLL	(1) SCROLL
Nominal Capacity (Tons)	5	4
Unit Power Supply (Volt/Phase)	208/3	208/3
Unit MCA/MAX Fuse or CB	45.0/50.0	33/40
Basis of Design	TRANE	TRANE
Model No.	EBCD060A3	EBCD048
UNIT WEIGHT (LBS)	1000	950

PROVIDE THE FOLLOWING
1- PROVIDE DIGITAL THERMOSTAT WITH COOLING AND HEATING STAGES TO MATCH UNIT WITH REMOTE SENSOR IN MAIN R/A DUCT
2- RTU WITH A SINGLE POINT POWER SUPPLY AND INTREGRAL 120V/ 1 PH WP/GFI SERVICE RECEPTACLE.
3- REFER TO STRUCTURAL DWGS FOR ROOF TOP MOUNTED EQUIPMENT DETAILS
4- PROVIDE MOTORIZED OUTSIDE AIR DAMPER TO BE INTERLOCKED WITH UNIT SUPPLY FAN
5- MOUNT OUTSDE AIR INTAKE TO BE MIN. OF 12 FT. AWAY FROM ANY EXHAUST OR PLUMBING/DRYER VENT
6- PROVIDE RTU WITH 30 % FILTER . MOUNT UNIT SO THAT FILTER IS ACCESSIBLE.
7- EXTERNAL STATIC PRESSURE LISTED DOES NOT INCLUDE PRESSURE DROP ACROSS ELECTRIC HEATER
8- PROVIDE FACTORY MOUNTED ROOF CURB AND ACCESSIBLE DISCONNECT SWITCH/CIRCUIT BREAKER FOR EACH UNIT
9- VERIFY VOLTAGE, AMPS AND PHASE OF ALL UNITS AND COORDINATE WITH ELECTRICAL CONTRACTOR FOR MCA AND MOCP
10- CONTRACTOR TO SUBMIT AHRI CERTIFICATE OF THE PROPOSED UNIT TO BUILDING DEPARTMENT



ROOF TOP UNIT MOUNTING DETAIL
NTS

SUPPLY AND OR RETURN RISER TO RTU'S COULD BE SPLIT INTO TWO SEPARATE RISERS TO ACCOMODATE TRUSS/JOIST LOCATION. COORDINATE WITH STRUCTURAL DWGS BEFORE INSTALLATION FOR DUCT ROUTING AND ROOF OPENING

DUCT MOUNTED SMOKE DETECTOR SHALL BE IONIZATION TYPE OPERATING ON DUAL CHAMBER PRINCIPAL, WITH INDICATOR LAMP. DETECTOR SHALL BE MOUNTED IN THE HOUSING WITH SAMPLING TUBE EXTENDED IN THE DUCTWORK. AS MANUFACTURED BY LENNOX/ADT OR EQ. CONTRACTOR SHALL SUBMIT CATALOG TO COUNTY FOR APPROVAL BEFORE INSTALLATION

CONNECT NEW DUCT MOUNTED SMOKE DETECTORS TO BUILDING FIRE ALARM SYSTEM (WHERE APPLICABLE)

PROVIDE REMOTE HORN AND STROPE IN CEILING TO ENERGIZE UPON ACTIVATION OF DUCT MOUNTED SMOKE DETECTOR

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PROJECT
Park Place at Douglas
Douglas Ave
Altamonte Springs Florida

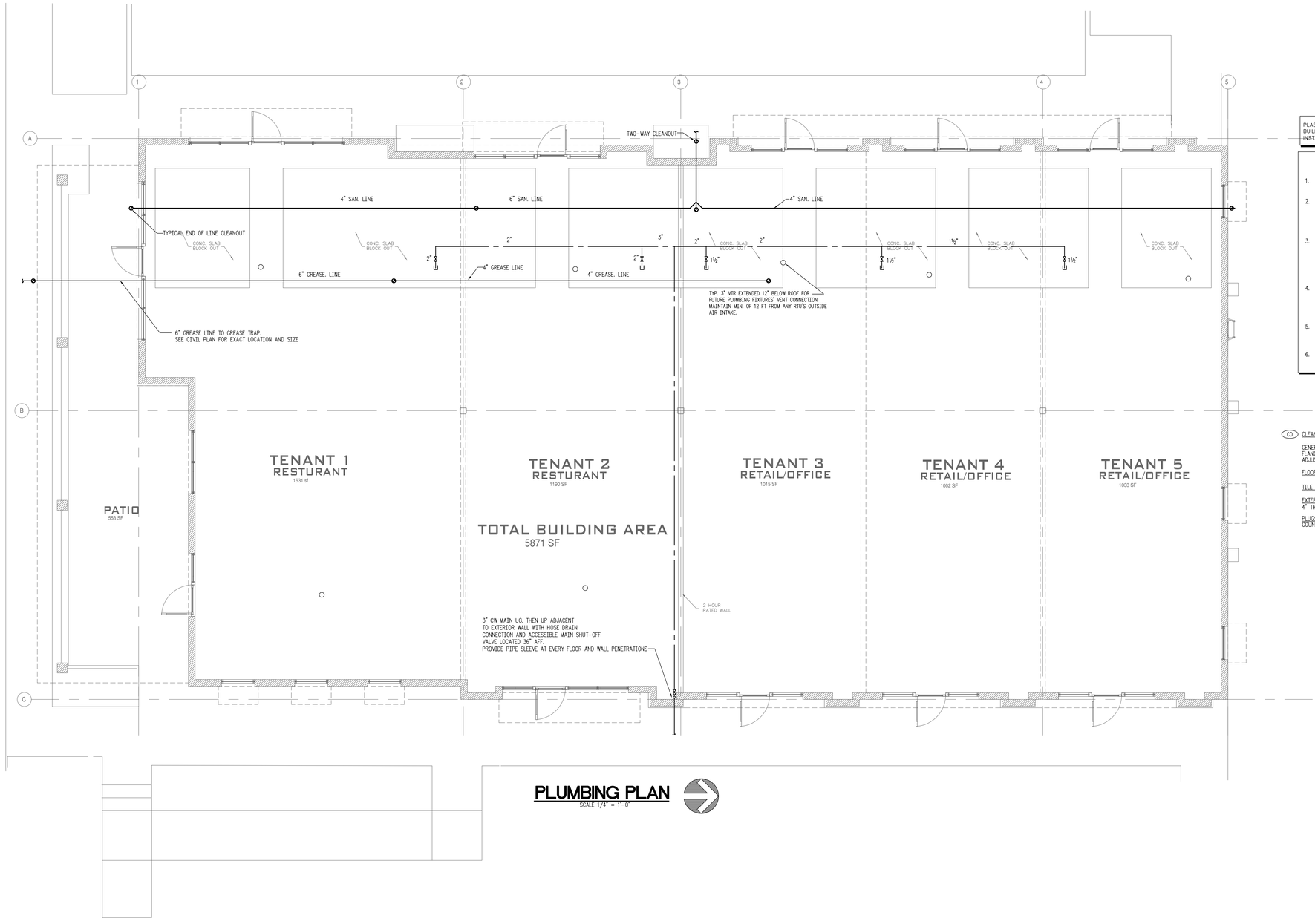
REVISION DATES

DATE
7-30-24

SHEET TITLE
HVAC PLAN, NOTES SCHEDULE, AND DETAILS

SHEET NUMBER
M-1
OF
1

PROJECT NO.
MGE-2435



PLUMBING PLAN
SCALE 1/4" = 1'-0"

PLASTIC PIPING MAY BE USED PROVIDED THAT OWNER AND BUILDING DEPT. APPROVE MATERIALS AND NOT TO BE INSTALLED IN FIRE RATED WALLS

PLUMBING SPECIFICATIONS:

1. PROVIDE ALL LABOR, MATERIALS AND EQUIPMENT FOR A COMPLETE AND PROPERLY OPERATING PLUMBING SYSTEM.
2. CONFORM TO THE REQUIREMENT OF THE FLORIDA PLUMBING CODE AND ALL OTHER GOVERNING CODES AND STANDARDS OF THE ENTITY ISSUNING THE PLUMBING PERMIT. ALL WORK TO BE IN COMPLIANCE WITH FPC 2017 , 6 TH EDITION
3. PLUMBING PIPING FOR DOMESTIC WATER SHALL BE TYPE "L" COPPER WITH WROUGHT SOLDER FITTINGS. ABOVE GROUND PLUMBING PIPING FOR DOMESTIC WATER MAY BE CPVC WITH COMPRESSION FITTINGS IF ALLOWED BY LOCAL BUILDING DEPARTMENT
4. PLUMBING SANITARY PIPING SHALL BE PVC WITH SOLVENT CEMEBT SANITARY PATTERN FITTINGS, OR SIMILAR TO EXISTING SANITARY PIPING SYSTEM PROVIDE ROOF FLASHING FOR PIPING PIERCING ROOF.
5. ALL PLUMBING FIXTURES SHALL BE "FIRST QUALITY" AS DEFINED AND SET FORTH IN COMMERCIAL STANDARD CS-36 AS PROMULGATED BY THR US DEPARTMENT OF COMMERCE.
6. CONTRACTOR SHALL EXAMINE EXISTING CONDITIONS.

(CO) CLEANOUTS

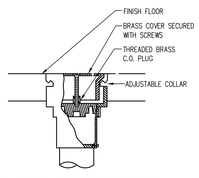
GENERAL(ALL FLOOR CLEANOUTS): DURO-COATED CAST IRON CLEANOUT WITH MEMBRANE FLANGE WITH CADMIUM PLATED CAST IRON COUNTERSUNK PLUG. CLEANOUT CAN BE ADJUSTED TO FINISH FLOOR LEVEL AFTER CONCRETE HAS SET.

FLOOR: HEAVY DUTY ROUND SCORIATED NICKEL BRONZE TOP

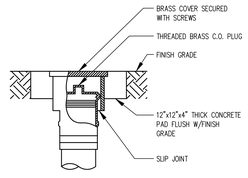
TILE FLOOR:HEAVY DUTY ROUND NICKEL BRONZE TOP RECESSED FOR TILE.

EXTERIOR:HEAVY DUTY ROUND SCORIATED NICKEL BRONZE TOP. PROVIDE WITH 18" X 4" THICK CONCRETE COLLAR, SEE DETAIL.

PLUG: DURA-COATED CAST IRON FERRULE AND CADMIUM PLATED CAST IRON COUNTERSUNK PLUG.



FLOOR CO INST. DETAIL



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DATE
7-30-24

SHEET TITLE
PLUMBING PLAN

SHEET NUMBER
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